Gridiron Australia Limited
PO Box 551, Parramatta NSW 2124 Australia
A.C.N. 073 881 811

CONCUSSION MANAGEMENT – POLICY AND PROTOCOLS

"It's better to miss one game than the whole season"

1.0 INTRODUCTION

1.1 Gridiron Australia and its members are committed to seeking to protect the health and safety of its players/members. This policy document provides guidance to members on how the issue of Concussion management should be addressed in Australia.

2.0 WHAT IS CONCUSSION?

2.1 "Concussion is caused by a bump or blow to the head or by a jolt to the body that causes the head to move rapidly back and forth. Even a mild blow to the head could result in a concussion. Concussion can affect memory, judgment, reflexes, speech, balance, and muscle coordination and can result in serious complications, such as swelling, bruising, or bleeding of the brain, which can cause permanent disability or death. Most concussions, however, do not result in a loss of consciousness, and some athletes may not experience symptoms until hours or days after sustaining a concussion. Therefore, according to the Centers for Disease Control and Prevention (CDC), all coaches, parents, and athletes need to learn concussion signs and symptoms and what to do if a concussion occurs[1]".

2.2 Concussions typically occur from blows to the head either from contact with another player, hitting a hard surface such as the ground, or being hit by or with a piece of equipment such as goal post[2].

2.3 NCAA research indicates "concussions represent 5 to 18 % of the total reported injuries, depending on the sport". It is likely that the 'real' number of concussions suffered by players is under reported because of a number of factors relating to issues such as fear of losing playing time and peer pressure[3].

2.4 In the absence of specific research on the Australian gridiron experience, Gridiron Australia accepts this NCAA research as a reasonable benchmark for estimating the potential rate of occurrence of concussion in Australia.

2.5 Several factors may affect decisions about when it is safe for an athlete to participate in sports again, which are referred to as return-to-play decisions. For example, research has shown that athletes who have sustained one concussion are at increased risk of sustaining another

[1] United States Government Accountability Office, "Concussion In High School Sports, Overall Estimates Of Occurrences Is Not Available, But Key State Laws and Nationwide Guidelines Address Injury Management", GAO Highlights, a Testimony before the Committee on Education and Labour, House of Representatives, United States Government Accountability Office, 20 May 2010

[2] National Collegiate Athletic Association, "NCAA Approach to Concussions", NCAA Behind the Blue Disk, 1 August 2010

[3] National Collegiate Athletic Association, "NCAA Approach to Concussions", NCAA Behind the Blue Disk, 1 August 2010

concussion. An athlete who sustains a repeat concussion before the brain recovers from the first—within hours, days, or weeks—may recover more slowly or may have increased likelihood of long-term consequences.

2.6 Research in the United States also indicates that children and adolescents are more likely than adults to sustain a concussion and take longer to recover from one, although the reasons for this difference remain unclear[4].

2.7 Refer to **Attachment 1 – Concussion Information Sheet** for a 1 page sheet which identified what signs/symptoms coaches and players should be on the look out to help identify concussion.

2.0 LIMITATIONS OF GRIDIRON AUSTRALIA POLICY ON CONCUSSION

2.1 Gridiron Australia acknowledges that it is not in a position to conduct specific research into the issue of player concussion within the 'Australian context' and as a consequence Gridiron Australia must rely on research conducted research undertaken overseas, predominately within the United States of America, to inform policy decisions, procedures and recommendations.

2.2 Gridiron Australia acknowledges that research in the area of the causes and effects of concussion in the sport of gridiron is undergoing a rapid evolution and recommendations for 'best practice' procedures may change at a pace that cannot be reasonable matched by the pace of change to Gridiron Australia's Guideline.

2.3 Therefore, the Gridiron Australia Guideline on Concussion should be applied 'consistently but not dogmatically'. It is responsibility of sports administrators and coaches to maintain a current knowledge of the issue and these guidelines in guiding their day-to-day decisions in protecting the health of all players.

3.0 GUIDING PRINCIPLES FOR CONCUSSION MANAGEMENT

The following guiding principles have been identified for how concussion will be managed;

(i) **All concussions are serious**

Concussion is a form of brain injury where "sudden movement of the brain causes stretching, damaging the cells and creating chemical changes in the brain. Once these changes occur, the brain is more vulnerable to further injury and sensitive to any increased stress until it fully recovers". A concussion is a disruption of how the brain works. It is not a "bruise to the brain[5]".

(ii) **Most concussions occur without loss of consciousness**

Loss of conscience is only one possible symptom of a concussion. You can't 'see' a concussion, like you can see other types of injury such as a broken ankle. There is no one single indicator for concussion so recognising a concussion requires watching for different types of signs or symptoms.

(iii) **Recognition and proper response to concussion when they first occur can prevent further injury or even death**.

[4] M. Field, M.W. Collins, M.R. Lovell, and J. Maroon, "Does Age Play a Role in Recovery from Sports-Related Concussion? A Comparison of High School and Collegiate Athletes," *Journal of Pediatrics*, vol. 142, no. 5 (2003). M.W. Kirkwood, K.O. Yeates, and P.E. Wilson, "Pediatric Sport-Related Concussion: A Review of the Clinical Management of an Oft-Neglected Population," *Pediatrics*, vol. 117, no. 4 (2006). J. Gilchrist, K.E. Thomas, M. Wald, and J. Langlois, "Nonfatal Traumatic Brain Injuries from Sports and Recreation Activities, United States, 2001-2005," *Morbidity and Mortality Weekly Report*, vol. 56, no. 29 (2007).

[5] USA Football, "Heads Up Concussion in Football", Football Fact Sheet for Coaches

The athlete's brain is at increased risk of injury, repeat concussion, and more extensive brain damage if proper treatment and rest is not undertaken. Time to recover is an important part of the healing process and the long term health of players.

(iv) **Winning is not everything, PLAYER HEALTH COMES FIRST!**

The health of players both in the short and long term must be the most important concern of everyone involved in the game. Player health should never be compromised to either continue and/or win a game.

The management of concussion is a collective responsibility shared by the coaches, players, parents/families, club administration and health care professionals.

"It's better to miss one game than the whole season"

The 'stigma of the tough player' must also be discouraged by everyone involved in the game. Playing hurt shouldn't be viewed or encouraged as a badge of honour. Players may/will feel pressure (peer, coaching, parental) to not let the team down, to shake it off, and to show how tough they are by playing through the injury/pain. It's up to coaches, administrators and families to let players know that their commitment to the team, their toughness won't be questioned and the most courageous, team orientated thing to do is acknowledge the injury, seek help and treatment and get healthy again.

(v) **Honest communication and understanding are key to good preventive and management of concussion.**

Honest and open communication between all parties involved in concussion management is essential. Players, Coaches, Parents/guardians, medical/First Aid staff must be encouraged to acknowledge the serious nature of concussion injuries and talk to each other to identify symptoms, discuss, agree to, and monitor appropriate treatment & actions.

(vi) **Concussion don't just happen in games, they can happen in any practice sessions.**

While a competitive game is the most obvious time when players are at risk of suffering a potential concussion event, any time players engage in physical activity relating to the sport there is potential for a player to suffer an impact that results in a concussion.

Life outside our sport also have an impact on concussion management. Players may engage in other contact sports or life events which may expose them to the risk of an impact that results in a concussion. Any 'pre-existing' concussion event from another area of a player's life is still much relevant to the management of concussion in our sport.

4.0 GRIDIRON AUSTRALIA CONCUSSION POLICY

4.1 The head coach of each team will coordinate a concussion educational session prior to the commencement of each season. The Head Coach will distribute a copy of the NCAA Concussion Fact Sheet to each player and lead a group discussion on the issue with particular emphasis on the need for players to support each other and report possible concussion events which have occurred to either themselves or a team member.

4.2 Prior to engaging in their 1st training session (or game) of the season all players (and parents/guardians if applicable) must read the NCAA Concussion Fact Sheets for Student Athletes and Coaches (refer Attachments 2 & 3) and sign the attached *Gridiron Australia Injury and Illness Reporting Acknowledgment Form* acknowledging that:

a. they have read and understand the *NCAA Concussion Fact Sheets*

b. they accept the responsibility for reporting their injuries and illnesses to the coaching staff and First Aid Attendants, including signs and symptoms of concussions.

4.3 Prior to engaging in their 1st training session (or game) of the season all coaches (head coaches and assistant coaches) must read and sign the attached *coaches statement* acknowledging that they:

a. have read and understand the *NCAA Concussion Fact Sheets* (refer Attachments 2 & 3);
b. will encourage their players to report any suspected injuries and illnesses to coaches and/or first aid staff, including signs and symptoms of concussions; and that they accept the responsibility for referring any player suspected of sustaining a concussion to appropriate medical care for formal assessment and treatment; and
c. have read and understand the *Gridiron Australia Concussion Management Policy and Protocols.*

4.4 Prior to engaging in their 1st training session or game of the season all first aid attendants at games (and practices sessions), are provided with a copy of:

a. *NCAA Concussion Fact Sheets for Student Athletes and Coaches* (refer Attachments 2 & 3).
b. *Gridiron Australia Concussion Management Policy and Protocols.*

The First Aid attendants are to be reminded that on game day (or at a training/practice session) they are the only persons with the authority to clear a player to return to action after an incident/player has been reported.

4.5 The head coach of each team will coordinate the distribution, signing, and collection of the necessary documents. A copy of the signed documents is to be forwarded to their state association as part of the player registration process where they will be kept on record for a minimum of 1 year after the end of the player's career.

4.6 The head coach of each team is required to maintain a record of all concussion injuries and to notify the State Gridiron Association of any recorded incidents.

4.7 The head coach of each team is required to notify the parents/guardians of any player under the age of 18 years of any recorded incidents.

4.8 The State Associations will coordinate an annual meeting prior to each season with Head Coaches to review the implementation of the Gridiron Australia Concussion Policy.

5.0 GRIDIRON AUSTRALIA CONCUSSION MANAGEMENT PROTOCOL

The Gridiron Australia Concussion Management Protocol includes:

(i) A player who is suspected of sustaining a concussion must be removed from the game/practice/training session following signs and symptoms of concussion.

(ii) The player is to be evaluated by the First Aid attendant to determine if the player has sustained a concussion. Coaches, players or parents should not try to judge the seriousness of the injury themselves.

(iii) The Team's Head Coach is to inform all team coaches that the player has been removed from the game, the reason for the removal (i.e. suspected concussion) and remind all coaches that the player is not to return to the field for the rest of this game.

(iv) The First Aid Attendant will make a determination of the player's 'concussion status'.

(v) If a player sustains a concussion as determined by the First Aid attendant, the player is not permitted to return to play or the practice training session on the same day.

(vi) The First Aid Attendant is the only person authorised to clear a player to return to the field of play or practice. The First Aid Attendant will inform the Head Coach of their decision and any treatment instructions.

(vii) The Head Coach is to formally notify the State Gridiron Association of any concussion incidents, the players involved and the follow-up actions required (i.e. Doctor Evaluation and written clearance required).

(viii) The Head Coach is to formally notify the parents/guardians of any Under 18 players of any concussion incidents (suspected or confirmed), and the follow-up actions required (i.e. Doctor Evaluation and written clearance required).

(ix) Players identified as having sustained a concussion by the First Aid Attendant must undergo evaluated by a Doctor and receive a written clearance to follow a stepwise progression back to full participation.

(x) Any subsequent suspected concussion events sustained by a player will automatically require further medical evaluation by a Doctor and written clearance for the player to return to practice or contests.

(xi) Any player who experiences two concussions within one season will require written clearance by a Doctor to register to play in subsequent seasons or representative teams.

5.0 Additional Information & Resources

Gridiron Australia has identified a number of resources that are suitable to inform club officials, coaches, players and family/care-givers regarding the issue of concussion;

General Information on Concussion

Centre for Disease Control and Prevention
www.cdc.gov/Concussion

USA Football
www.usafootball.com

National Collegiate Athletic Association

http://www.ncaa.org/wps/wcm/connect/ncaa/ncaa/academics+and+athletes/personal+welfare/health+and+safety/concussion

ESPN – NFL Concussion Video – The Physics of Helmet to Helmet Collisions
http://espn.go.com/video/clip?id=5706389

On Line Training Courses on Concussion

Centre for Disease Control and Prevention – Free Heads Up Online Training Course on Concussion
http://www.cdc.gov/concussion/HeadsUp/online_training.html

National Federation of High Schools Website – Free on-line course on Concussion in Sport
http://www.nfhslearn.com/electiveDetail.aspx?courseID=15000

On Line Concussion Assessment/Management Tools

ImPACT (**Im**mediate **P**ost-Concussion **A**ssessment and **C**ognitive **T**esting) – Online Concussion Assessment system.
http://impacttest.com/

ATTACHMENT 1

CONCUSSION INFORMATION SHEET

CONCUSSION SIGNS AND SYMPTOMS

Athletes who experience one or more of the signs and symptoms listed below after a bump, blow, or jolt to the head or body may have a concussion.

1 Signs Observed by Coaching Staff:

(i) Appears dazed or stunned
(ii) Is confused about assignment or position
(iii) Forgets an instruction
(iv) Is unsure of game, score, or opponent
(v) Moves clumsily
(vi) Answers questions slowly
(vii) Loses consciousness (even briefly)
(viii) Shows mood, behavior, or personality changes
(ix) Can't recall events prior to hit or fall
(x) Can't recall events after hit or fall

2 Symptoms Reported by Athlete:

(i) Headache or "pressure" in head
(ii) Nausea or vomiting
(iii) Balance problems or dizziness
(iv) Double or blurry vision
(v) Sensitivity to light
(vi) Sensitivity to noise
(vii) Feeling sluggish, hazy, foggy, or groggy
(viii) Concentration or memory problems
(ix) Confusion
(x) Just not "feeling right" or is "feeling down"

3 In rare cases, a dangerous blood clot may form on the brain of an athlete with a concussion and crowd the brain against the skull. Call 0-0-0 or take the athlete to the emergency department of the nearest hospital immediately if after a bump, blow, or jolt to the head or body he exhibits **one or more** of the following danger signs:

(i) One pupil larger than the other
(ii) Is drowsy or cannot be awakened
(iii) A headache that gets worse
(iv) Weakness, numbness, or decreased coordination
(v) Repeated vomiting or nausea
(vi) Slurred speech
(vii) Convulsions or seizures
(viii) Cannot recognize people or places
(ix) Becomes increasingly confused, restless, or agitated
(x) Has unusual behaviour
(xi) Loses consciousness (a brief loss of consciousness should be taken seriously)

ATTACHMENT 2

NCAA CONCUSSION FACT SHEET – STUDENT ATHLETE

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.

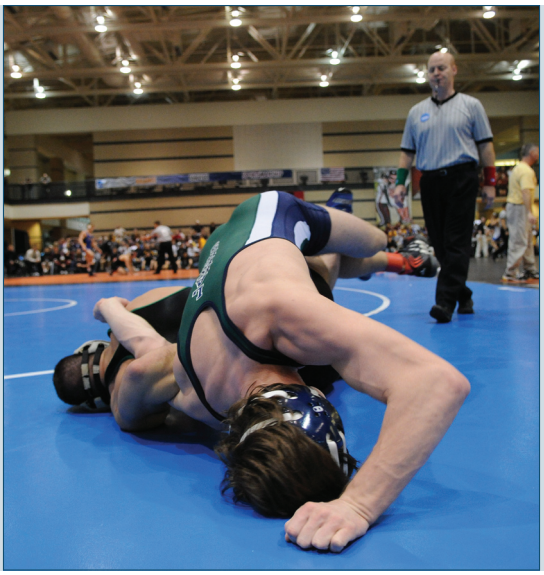
WHAT SHOULD I DO IF I THINK I HAVE A CONCUSSION?

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 and www.CDC.gov/Concussion.

Reference to any commercial entity or product or service on this page should not be construed as an endorsement by the Government of the company or its products or services.

ATTACHMENT 3

NCAA CONCUSSION FACT SHEET - COACHES

CONCUSSION

A FACT SHEET FOR COACHES

THE FACTS

- A concussion is a brain injury.
- All concussions are serious.
- Concussions can occur without loss of consciousness or other obvious signs.
- Concussions can occur from blows to the body as well as to the head.
- Concussions can occur in *any* sport.
- Recognition and proper response to concussions when they first occur can help prevent further injury or even death.
- Athletes may not report their symptoms for fear of losing playing time.
- Athletes can still get a concussion even if they are wearing a helmet.
- Data from the NCAA Injury Surveillance System suggests that concussions represent 5 to 18 percent of all reported injuries, depending on the sport.

WHAT IS A CONCUSSION?

A concussion is a brain injury that may be caused by a blow to the head, face, neck or elsewhere on the body with an "impulsive" force transmitted to the head. Concussions can also result from hitting a hard surface such as the ground, ice or floor, from players colliding with each other or being hit by a piece of equipment such as a bat, lacrosse stick or field hockey ball.

RECOGNIZING A POSSIBLE CONCUSSION

To help recognize a concussion, watch for the following two events among your student-athletes during both games and practices:

1. A forceful blow to the head or body that results in rapid movement of the head;

-AND-

2. **Any change** in the student-athlete's behavior, thinking or physical functioning (see signs and symptoms).

SIGNS AND SYMPTOMS

Signs Observed By Coaching Staff

- Appears dazed or stunned.
- Is confused about assignment or position.
- Forgets plays.
- Is unsure of game, score or opponent.
- Moves clumsily.
- Answers questions slowly.
- Loses consciousness (even briefly).
- Shows behavior or personality changes.
- Can't recall events before hit or fall.
- Can't recall events after hit or fall.

Symptoms Reported By Student-Athlete

- Headache or "pressure" in head.
- Nausea or vomiting.
- Balance problems or dizziness.
- Double or blurry vision.
- Sensitivity to light.
- Sensitivity to noise.
- Feeling sluggish, hazy, foggy or groggy.
- Concentration or memory problems.
- Confusion.
- Does not "feel right."

PREVENTION AND PREPARATION

As a coach, you play a key role in preventing concussions and responding to them properly when they occur. Here are some steps you can take to ensure the best outcome for your student-athletes:

- Educate student-athletes and coaching staff about concussion. Explain your concerns about concussion and your expectations of safe play to student-athletes, athletics staff and assistant coaches. Create an environment that supports reporting, access to proper evaluation and conservative return-to-play.
  - Review and practice your emergency action plan for your facility.
  - Know when you will have sideline medical care and when you will not, both at home and away.
  - Emphasize that protective equipment should fit properly, be well maintained, and be worn consistently and correctly.
  - Review the Concussion Fact Sheet for Student-Athletes with your team to help them recognize the signs of a concussion.
  - Review with your athletics staff the NCAA Sports Medicine Handbook guideline: Concussion or Mild Traumatic Brain Injury (mTBI) in the Athlete.
- Insist that safety comes first.
  - Teach student-athletes safe-play techniques and encourage them to follow the rules of play.
  - Encourage student-athletes to practice good sportsmanship at all times.
  - Encourage student-athletes to immediately report symptoms of concussion.
- Prevent long-term problems. A repeat concussion that occurs before the brain recovers from the previous one (hours, days or weeks) can slow recovery or increase the likelihood of having long-term problems. In rare cases, repeat concussions can result in brain swelling, permanent brain damage and even death.

IF YOU THINK YOUR STUDENT-ATHLETE HAS SUSTAINED A CONCUSSION:

Take him/her out of play immediately and allow adequate time for evaluation by a health care professional experienced in evaluating for concussion.

An athlete who exhibits signs, symptoms or behaviors consistent with a concussion, either at rest or during exertion, should be **removed immediately from practice or competition** and should not return to play until cleared by an appropriate health care professional. Sports have injury timeouts and player substitutions so that student-athletes can get checked out.

IF A CONCUSSION IS SUSPECTED:

1. **Remove the student-athlete from play.** Look for the signs and symptoms of concussion if your student-athlete has experienced a blow to the head. Do not allow the student-athlete to just "shake it off." Each individual athlete will respond to concussions differently.

2. **Ensure that the student-athlete is evaluated right away by an appropriate health care professional.** Do not try to judge the severity of the injury yourself. Immediately refer the student-athlete to the appropriate athletics medical staff, such as a certified athletic trainer, team physician or health care professional experienced in concussion evaluation and management.

3. **Allow the student-athlete to return to play only with permission from a health care professional with experience in evaluating for concussion.** Allow athletics medical staff to rely on their clinical skills and protocols in evaluating the athlete to establish the appropriate time to return to play. A return-to-play progression should occur in an individualized, step-wise fashion with gradual increments in physical exertion and risk of contact.

4. **Develop a game plan.** Student-athletes should not return to play until all symptoms have resolved, both at rest and during exertion. Many times, that means they will be out for the remainder of that day. In fact, as concussion management continues to evolve with new science, the care is becoming more conservative and return-to-play time frames are getting longer. Coaches should have a game plan that accounts for this change.

IT'S BETTER THEY MISS ONE GAME THAN THE WHOLE SEASON. WHEN IN DOUBT, SIT THEM OUT.

For more information and resources, visit www.NCAA.org/health-safety and www.CDC.gov/Concussion.

ATTACHMENT 4

GRIDIRON AUSTRALIA INJURY AND ILLNESS REPORTING ACKNOWLEDGEMENT STATEMENT

Gridiron Australia Limited
PO Box 170 Woden ACT 2606 Australia
A.C.N. 073 881 811

Gridiron Australia Player Injury and Illness Reporting Acknowledgment Form

I, _____, acknowledge that I have to be an active participant in my own healthcare. As such, I have the direct responsibility for reporting all of my injuries and illnesses to the coaching staff of my team.

I recognise that my true physical condition is dependent upon an accurate medical history and a full disclosure of any symptoms, complaints, prior injuries and/or disabilities experienced.

I hereby affirm that I have fully disclosed in writing any prior medical conditions and will also disclose any future conditions to the coaches of my team.

I further understand that there is a possibility that participation in gridiron may result in a head injury and/or concussion.

I have been provided with education on head injuries and understand the importance of immediately reporting symptoms of a head injury/concussion to my coaches and any medical staff or 1st aid attendants providing medical attention at any games or practice/training sessions.

By signing below, I acknowledge that my team has provided me with specific educational materials on what a concussion is and given me an opportunity to ask questions about areas and issues that are not clear to me on this issue.

I have read and understand the *NCAA Concussion Fact Sheet for Student Athletes.*

After reading the NCAA Concussion fact sheet, I am aware of the following information:

1. A concussion is a brain injury, which I am responsible for reporting to my coaches and/or 1st Aid Attendant.
2. A concussion can affect my ability to perform everyday activities, and affect reaction time, balance, sleep, and classroom/workplace performance.
3. 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.
4. If I suspect a teammate has a concussion, I am responsible for reporting the injury to my coaches and/or team medical staff and/or the First Aid Attendant.
5. 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.

6. Following 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.
7. In rare cases, repeat concussions can cause permanent brain damage, and even death.

I, _____ have read the above and agree that the statements are accurate.

_____	_____
Signature of Player	Date
_____	_____
Parent/Guardian (if applicable)	Signature of Parent/Guardian
_____	_____
Name of person obtaining consent (i.e. Head Coach/Team Manager)	Signature of person obtaining consent

ATTACHMENT 5

GRIDIRON AUSTRALIA COACHES CONCUSSION STATEMENT

Gridiron Australia Limited
PO Box 170 Woden ACT 2606 Australia
A.C.N. 073 881 811

Gridiron Australia Coaches Concussion Statement

I, _____, as a Coach of _____, acknowledge that I have a responsibility for the healthcare of my players during all activities (practice sessions, games, etc) associated with my team.

I have read and understand the *Gridiron Australia Concussion Management Policy and Protocols.*

I have read and understand the *NCAA Concussion Fact Sheet for Student Athletes.*

After reading the NCAA Concussion fact sheets and Gridiron Australia Concussion Management and Protocols, I am aware of the following information:

1. A concussion is a brain injury, which I am responsible for reporting to my coaches and/or 1st Aid Attendant.
2. A concussion can affect a player's ability to perform everyday activities, and affect reaction time, balance, sleep and classroom/workplace performance. You cannot see a concussion, but you might notice some o the symptoms right away. Other symptoms can show up hours or days after the injury.
3. I will not knowingly allow a player to return to play in a game or practice if he/she has received a blow to the head or body that results in concussion related symptoms.
4. Athletes shall not return to play in a game or practice on the same day that they are suspected of having a concussion.
5. If I suspect one of my players has a concussion, it is my responsibility to have that player see the First Aid Attendant or team medical staff.
6. I will encourage my players to report any suspected injuries and illnesses to the First Aid Attendant or team medical staff, including signs and symptoms of concussion.
7. Following concussion the brain needs time to heal. Concussed players are much more likely to have a repeat concussion if they return to play before their symptoms resolve. In rare cases, repeat concussions can cause permanent brain damage, and even death.
8. I am aware that the First Aid Attendant is the only person authorised to clear a player suspected of having concussion symptoms to return to a game/training/practice session.
9. I am aware that once a First Aid Attendant has determined that a player may have a concussion, that player cannot return to practice or game play without medical evaluation by a licensed health professional (i.e. Doctor) and written clearance for the player to return to practice.

10. I am aware that must formally notify the State Gridiron Association of any player assessed by a First Aid Attendant to have a possible a concussion, the date of the concussion incident and the required follow-up action (i.e. medical evaluation by a licensed health professional and written clearance for the player to return to practice).

11. I am aware of and committed to educating and supporting my players to develop a team culture of acceptance that encourages reporting of concussion symptoms and doesn't negative judge players. "Its better to miss one game than the whole season" and "when in doubt, get it checked out" will be promoted at all times.

I, _____, Coach of the _____, have read the above and agree that the statements are accurate.

_____ _____

Signature of Coach Date

ATTACHMENT 6

OTHER HELPFUL RESOURCE FOR CONCUSSION EDUCATION AND AWARENESS

HEADS UP CONCUSSION IN FOOTBALL

USA Football

Department of Health and Human Services
Centers for Disease Control and Prevention

CDC

SIGNS AND SYMPTOMS

Athletes who experience any of the signs and symptoms listed below after a bump, blow, or jolt to the head or body may have a concussion.

Signs Observed by Coaching Staff
Appears dazed or stunned
Is confused about assignment or position
Forgets an instruction
Is unsure of game, score, or opponent
Moves clumsily
Answers questions slowly
Loses consciousness (even briefly)
Shows mood, behavior, or personality changes
Can't recall events prior to hit or fall
Can't recall events after hit or fall

Symptoms Reported by Athlete
Headache or "pressure" in head
Nausea or vomiting
Balance problems or dizziness
Double or blurry vision
Sensitivity to light
Sensitivity to noise
Feeling sluggish, hazy, foggy, or groggy
Concentration or memory problems
Confusion
Does not "feel right" or is "feeling down"

For more information and safety resources, visit **www.cdc.gov/Concussion** or **www.usafootball.com**.

ACTION PLAN

If you suspect that an athlete has a concussion, you should take the following four steps:

1. Remove athlete from play.
2. Ensure that the athlete is evaluated by an appropriate health care professional. Do not try to judge the seriousness of the injury yourself.
3. Inform the athlete's parents or guardians about the possible concussion and give them the fact sheet on concussion.
4. Keep the athlete out of play the day of the injury and until an appropriate health care professional says they are symptom-free and it's OK to return to play.

IMPORTANT PHONE NUMBERS

Emergency Medical Services
Name:
Phone:

Health Care Professional
Name:
Phone:

School Staff Available During Practice
Name:
Phone:

School Staff Available During Games
Name:
Phone:

WHEN IN DOUBT, SIT THEM OUT

January 2010

NCAA® GUIDELINE 2i

Concussion or Mild Traumatic Brain Injury (mTBI) in the Athlete

June 1994 • Revised July 2004, 2009, July 2010

Estimates suggest that 1.6-1.8 million concussions occur from participation in sports- and recreation-related activities every year (see reference No. 18). These injuries are often difficult to detect, with athletes often underreporting their injury, minimizing their importance or not recognizing that an injury has occurred. At the college level, these injuries are more common in certain sports, such as football, ice hockey, men's and women's soccer, and men's lacrosse. However, they also account for a significant percentage of injuries in men's and women's basketball, women's lacrosse, and other sports traditionally considered "noncontact."

The incidence in helmeted versus nonhelmeted sports is also similar. In the years 2004 to 2009, the rate of concussion during games per 1,000 athlete exposures for football was 3.1, for men's lacrosse 2.6, for men's ice hockey 2.4, for women's ice hockey 2.2, for women's soccer 2.2, for wrestling 1.4, for men's soccer 1.4, for women's lacrosse 1.2, for field hockey 1.2, for women's basketball 1.2, and for men's basketball 0.6, accounting for between 4 and 16.2 percent of the injuries for these sports as reported by the NCAA Injury Surveillance Program by the Datalys Center.

Assessment and management of concussive injuries, and return-to-play decisions remain some of the most difficult responsibilities facing the sports medicine team. There are potentially serious complications of multiple or severe concussions, including second impact syndrome, postconcussive syndrome, or post-traumatic encephalopathy. Though there is some controversy as to the existence of second impact syndrome, in which a second impact with potentially catastrophic consequences occurs before the full recovery after a first insult, the risks include severe cognitive compromise and death. Other associated injuries that can occur in the setting of concussion include seizures, cervical spine injuries, skull fractures and/or intracranial bleed. Due to the serious nature of mild traumatic brain injury, and these serious potential complications, it is

imperative that the health care professionals taking care of athletes are able to recognize, evaluate and treat these injuries in a complete and progressive fashion. In April 2010, the NCAA Executive Committee adopted a policy that requires NCAA institutions to have a concussion management plan on file. (See information box on page 55.)

Concussion or mild traumatic brain injury (mTBI) has been defined as "a complex pathophysiological process affecting the brain, induced by traumatic biomechanical forces." Although concussion most commonly occurs after a direct blow to the head, it can occur after a blow elsewhere that is transmitted to the head. Concussions can be defined by the clinical features, pathophysiological changes and/or biomechanical forces that occur, and these have been described in the literature. The neurochemical and neurometabolic changes that occur in concussive injury have been elucidated, and exciting research is underway describing the genetic factors that may play a role in determining which individuals are at an increased risk for sustaining brain injury.

Most commonly, concussion is characterized by the rapid onset of cognitive impairment that is self limited and spontaneously resolves. The acute symptoms of concussion, listed below, are felt to reflect a functional disturbance in cognitive function instead of structural abnormalities, which is why diagnostic tests such as magnetic resonance imaging (MRI) and computerized tomography (CT) scans are most often normal. These studies may have their role in assessing and evaluating the head-injured athlete whenever there is concern for the associated injuries of skull fracture, intracranial bleeding and seizures, when there is concern for structural abnormalities or when the symptoms of an athlete persist or deteriorate.

Concussion is associated with clinical scenarios that often clear spontaneously, and may or may not be associated with loss of consciousness (LOC).

The sideline evaluation of the brain-injured athlete should include an assessment of airway, breathing and circulation (ABCs), followed by an assessment of the cervical spine and skull for associated injury. The sideline evaluation should also include a neurological and mental status examination and some form of brief neurocognitive testing to assess memory function and attention. This can be in the form of questions regarding the particular practice or competition, previous game results, and remote and recent memory, and questions to test the athlete's recall of words, months of the year backwards and calculations. Special note should be made regarding the presence and duration of retrograde or anterograde amnesia, and the presence and duration of confusion. A timeline of injury and the presence of symptoms should be noted. These sideline tests should be performed and repeated as necessary, but do not take the place of other comprehensive neuropsychological tests.

Once an injury occurs and an initial assessment has been made, it is important to determine an initial plan of action, which includes deciding on whether additional referral to a physician and/or emergency department should take place, and determining the follow-up care. The medical staff should also determine whether additional observation or hospital admission should be considered.

Follow-up care and instructions should be given to the athlete, and ensuring that they are not left alone for an initial period of time should be considered. Athletes should avoid alcohol or other substances that will impair their cognitive function, and also avoid aspirin and other medications that can increase their risk of bleeding.

As mentioned previously, conventional imaging studies such as MRI and CT scans are usually normal in mTBI. However, these studies are considered an adjunct when any structural lesion, such as an intracranial bleed or fracture, is suspected. If an athlete

Table 1

SIGNS AND SYMPTOMS OF mTBI

- Loss of consciousness (LOC)
- Confusion
- Post-traumatic amnesia (PTA)
- Retrograde amnesia (RGA)
- Disorientation
- Delayed verbal and motor responses
- Inability to focus
- Headache
- Nausea/Vomiting
- Excessive drowsiness
- Visual Disturbances (Photophobia, blurry Phono/ photophobia vision, double vision)
- Disequilibrium
- Feeling "in a fog," "zoned out"
- Vacant stare
- Emotional lability
- Dizziness
- Slurred/incoherent speech

experiences prolonged loss of consciousness, confusion, seizure activity, focal neurologic deficits or persistent clinical or cognitive symptoms, then additional testing may be indicated.

There are several grading systems and return-to-play guidelines in the literature regarding concussion in sport (AAN, Torg, Cantu). However, there may be limitations because they presume that LOC is associated with more severe injuries. It has been demonstrated that LOC does not correlate with severity of injury in patients presenting to an emergency department with closed head injury, and has also been demonstrated in athletes with concussion (Lovell '99). It has been further demonstrated that retrograde amnesia (RGA), post-traumatic amnesia (PTA), and the duration of confusion and mental status changes are more sensitive indicators of injury severity (Collins '03), thus an athlete with these symptoms should not be allowed to return to play during the same day. These athletes should not return to any participation until cleared by a physician. More recent grading systems have been published that attempt to take into account the expanding research in the field of mTBI in athletes. Though it is useful to become familiar with these guidelines, it is important to remember that many of these injuries are best treated in an individual fashion (Cantu '01, Zurich Conference, NATA '04).

1. NCAA Concussion Fact Sheets and Video for Coaches and Student-Athletes
Available at www.NCAA.org/health-safety.
2. Heads Up: Concussion Tool Kit
CDC. Available at www.cdc.gov/ncipc/tbi/coaches_tool_kit.htm.
3. Heads Up Video
NATA. Streaming online at www.nata.org/consumer/headsup.htm.

Several recent publications have endorsed the use of neurocognitive or neuropsychological testing as the cornerstone of concussion evaluation. These tests provide a reliable assessment and quantification of brain function by examining brain-behavior relationships. These tests are designed to measure a broad range of cognitive function, including speed of information processing, memory recall, attention and concentration, reaction time, scanning and visual tracking ability, and problem solving ability. Several computerized versions of these tests have also been designed to improve the availability of these tests, and make them easier to distribute and use. Ideally, these tests are performed before the season as a "baseline" with which post-injury tests can be compared. Despite the utility of neuropsychological test batteries in the assessment and treatment of concussion in athletes, several questions remain unanswered. Further research is needed to understand the complete role of neuropsychological testing.

Given these limitations, it is essential that the medical care team treating athletes continue to rely on its clinical skills in evaluating the head-injured athlete to the best of its ability. It is essential that no athlete be allowed to return to participation when any symptoms persist, either at rest or during exertion. Any athlete exhibiting an injury that involves significant symptoms, long duration of symptoms or difficulties with memory function should not be allowed to return to play during the same day of competition. The duration of time that an athlete should be kept out of physical activity is unclear, and in most instances, individualized return-to-play decisions should be made. These decisions will often depend on the clinical symptoms, previous history of concussion and severity of previous concussions. Additional factors include the sport, position, age, support system for the athlete and the overall "readiness" of the athlete to return to sport.

Once an athlete is completely asymptomatic, the return-to-play progression should occur in a step-wise fashion with gradual increments in physical exertion and risk of contact. After a period of remaining asymptomatic, the first step is an "exertional challenge" in which the athlete exercises for 15 to 20 minutes in an activity such as biking or running in which he/she increases his/her heart rate and

Table 2
SYMPTOMS OF POST-CONCUSSION SYNDROME

Loss of intellectual capacity	Fatigue
Poor recent memory	Irritability
Personality changes	Phono/photophobia
Headaches	Sleep disturbances
Dizziness	Sleep disturbances
Lack of concentration	Depressed mood
Poor attention	Anxiety

breaks a sweat. If he/she does not experience any symptoms, this can be followed by a steady increase in exertion, followed by return-to-sport-specific activities that do not put the athlete at risk for contact. Examples include dribbling a ball or shooting, stickwork or passing, or other agilities. This allows the athlete to return to the practice setting, albeit in a limited role. Finally, the athlete can be progressed to practice activities with limited contact and finally full contact. How quickly one moves through this progression remains controversial.

The NCAA Executive Committee adopted (April 2010) the following policy for institutions in all three divisions.

"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 evaluated by an athletics healthcare provider with experience in the evaluation and management of concussions. 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 his or her designee according to the concussion management plan.

"In addition, student-athletes must sign a statement in which they accept the responsibility for reporting their injuries and illnesses to the institutional medical staff, including signs and symptoms of concussions. During the review and signing process, student-athletes should be presented with educational material on concussions."

References

1. Cantu RC: Concussion severity should not be determined until all postconcussion symptoms have abated. Lancet 3:437-8, 2004.

2. Cantu RC: Recurrent athletic head injury: risks and when to retire. Clin Sports Med. 22:593-603, 2003.

3. Cantu RC: Post traumatic (retrograde/anterograde) amnesia: pathophysiology and implications in grading and safe return to play. Journal of Athletic Training. 36(3): 244-8, 2001.

4. Centers for Disease Control and Prevention. Sports-related recurrent brain injuries: United States. MMWR Morb Mortal Wkly Rep 1997; 46:224-227.

5. Collie A, Darby D, Maruff P: Computerized cognitive assessment of athletes with sports related head injury. Br. J Sports Med 35(5):297-302, 2001.

6. Collins MW, Iverson GL, Lovell MR, McKeag DB, Norwig J, Maroon J: On-field predictors of neuropsychological and symptom deficit following sports-related concussion. Clin J Sport Med 2003; 13:222-229.

7. Collins MW, Grindel SH, Lovell MR et al: Relationship Between Concussion and Neuropsychological Performance in College Football Players. JAMA 282:964-970, 1999.

8. Guskiewicz KM, Bruce SL, Cantu R, Ferrara MS, Kelly JP, McCrea M, Putukian M, McLeod-Valovich TC; National Athletic Trainers' Association Position Statement: Management of Sport-related Concussion: Journal of Athletic Training. 39(3): 280-297, 2004.

9. Guskiewicz KM: Postural stability assessment following concussion: One piece of the puzzle. Clin J Sport Med 2001; 11:182-189.

10. Hovda DA, Lee SM, Smith ML et al: The Neurochemical and metabolic cascade following brain injury: Moving from animal models to man. J Neurotrauma 12(5):143-146, 1995.

11. Johnston K, Aubry M, Cantu R et al: Summary and Agreement Statement of the First International Conference on Concussion in Sport, Vienna 2001, Phys & Sportsmed 30(2):57-63, 2002.

12. Lovell MR, Iverson GL, Collins MW et al: Does loss of consciousness predict neuropsychological decrements after concussion? Clin J Sport Med 9:193-198, 1999.

13. Makdissi M, Collie A, Maruff P et al: Computerized cognitive assessment of concussed Australian Rules footballers. Br. J Sports Med 35(5):354-360, 2001.

14. McCrea M: Standardized mental status assessment of sports concussion. Clin J Sport Med 11(3):176-181, 2001.

15. McCrea M, Hammeke T, Olsen G, Leo , Guskiewicz K: Unreported concussion in high school football players. Clin J Sport Med 2004;14:13-17.

16. McCrory P, Meeuwisse W, Johnston K, Dvorak J, Aubry M, Molloy M, Cantu R. Concensus Statement on Concussion in Sport: the Third International Conference on Concussion in Sport. Zurich, Switzerland, 2008. Br J Sports Med 2009;43:i76-i84.

17. Torg JS: Athletic Injuries to the Head, Neck, and Face. St. Louis, Mosby-Year Book, 1991.

18. Langlois JA, Rutland-Brown LV, Wald MM. The Epidemiology and Impact of Traumatic Brain Injury. J Head Trauma Rehabil. 2006; 21:375-8.

In Addition to the Executive Committee Policy Requirements, Additional Best Practices for a Concussion Management Plan Include, but are not Limited to:

1. Although sports currently have rules in place, athletics staff, student-athletes and officials should continue to emphasize that purposeful or flagrant head or neck contact in any sport should not be permitted and current rules of play should be strictly enforced.

2. Institutions should have on file and annually update an emergency action plan for each athletics venue to respond to student-athlete catastrophic injuries and illnesses, including but not limited to, concussions, heat illness, spine injury, cardiac arrest, respiratory distress (e.g., asthma), and sickle cell trait collapses. All athletics healthcare providers and coaches should review and practice the plan at least annually.

3. Institutions should have on file an appropriate healthcare plan that includes equitable access to athletics healthcare providers for each NCAA sport.

4. Athletics healthcare providers should be empowered to have the unchallengeable authority to determine management and return-to-play of any ill or injured student-athlete, as the provider deems appropriate. For example, a countable coach should not serve as the primary supervisor for an athletics healthcare provider, nor should the coach have sole hiring or firing authority over a provider.

5. The concussion management plan should outline the roles of athletics healthcare staff (e.g., physician, certified athletic trainer, nurse practitioner, physician assistant, neurologist, neuropsychologist). In addition, the following components have been specifically identified for the collegiate environment:

a. Institutions should ensure that coaches have acknowledged that they understand the concussion management plan, their role within the plan and that they received education about concussions.

b. Athletics healthcare providers should practice within the standards as established for their professional practice (e.g., physician, certified athletic trainer, nurse practitioner, physician assistant, neurologist, neuropsychologist).

c. Institutions should record a baseline assessment for each student-athlete before the first practice in the sports of baseball, basketball, diving, equestrian, field hockey, football, gymnastics, ice hockey, lacrosse, pole vaulting, rugby, soccer, softball, water polo and wrestling, at a minimum. The same baseline assessment tools should be used post-injury at appropriate time intervals. The baseline assessment should consist of one or more of the following areas of assessment.

1) At a minimum, the baseline assessment should consist of the use of a symptoms checklist and standardized cognitive and balance assessments [e.g., SAC; SCAT; SCAT II; Balance Error Scoring System (BESS)].

2) Additionally, neuropsychological testing (e.g., computerized, standard paper and pencil) has been shown to be effective in the evaluation and management of concussions. The development and implementation of a neuropsychological testing program should be performed in consultation with a neuropsychologist who is in the best position to interpret NP tests by virtue of background and training. However, there may be situations in which neuropsychologists are not available and a physician experienced in the use and interpretation of such testing in an athletic population may perform or interpret NP screening tests.

d. The student-athlete should receive serial monitoring for deterioration. Athletes should be provided with written instructions upon discharge, preferably with a roommate, guardian or someone who can follow the instructions.

e. The student-athlete should be evaluated by a team physician as outlined within the concussion management plan. Once asymptomatic and post-exertion assessments are within normal baseline limits, return-to-play should follow a medically supervised stepwise process.

6. Institutions should document the incident, evaluation, continued management and clearance of the student-athlete with a concussion.

For references, visit www.NCAA.org/health-safety.

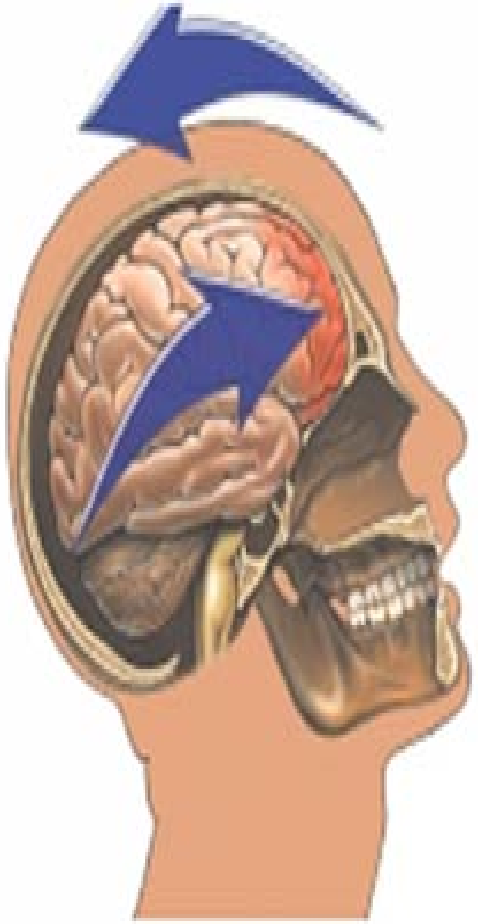
NCAA CONCUSSION UPDATE

RHONDA HYATT, ATC

What is a Concussion?

- A type of Traumatic Brain Injury
- A **concussion** is a disturbance in brain function caused by a direct or indirect force to the head.
- It results in a variety of nonspecific symptoms and *often* does not involve loss of consciousness.

A concussion is a violent jarring or shaking that results in a disturbance of brain function



The head strikes a hard object creating a concussion-type injury

Facts-CDC/NCAA

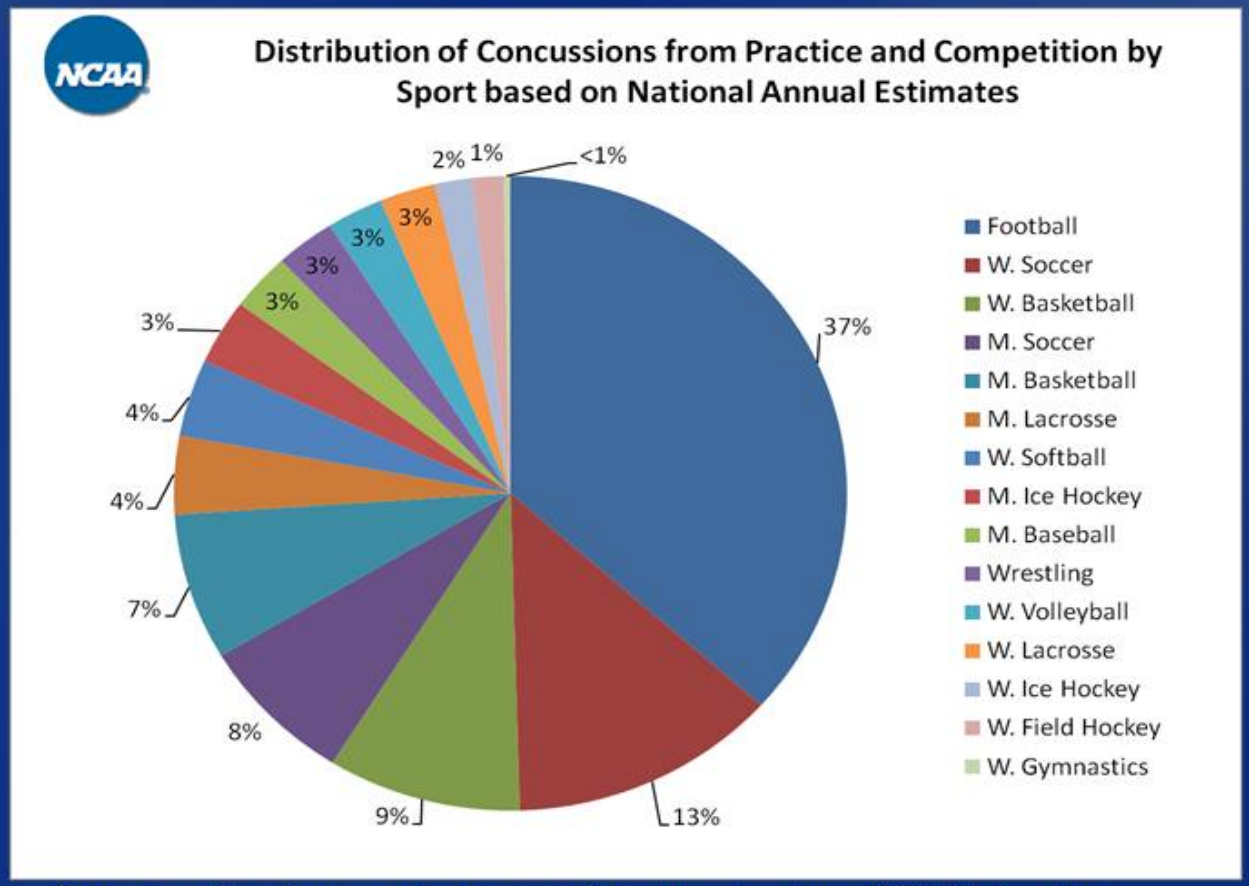
- Football has the highest injury rate of all fall sports, with 48 of every 1,000 student-athletes who stepped on a field suffer an injury.
- In any given season, 10% of all college players sustain brain injuries.
- Football had the highest competition-to-practice-rate ratio, showing a nearly **seven-times** greater rate of injury in competition, compared to practice.

Facts – CDC/NCAA

- An athlete who sustains concussion is 4-6 times more likely to sustain a second concussion.
- Athletes are apprehensive about reporting concussive episodes.
- Effects of concussion are **cumulative**; athletes who return to play prior to complete recovery suffer more severe symptoms of longer duration.

University of Michigan Medical School

Annual Distribution of Concussion in NCAA Sports



Estimated 10,000 each year

Concussion injury data provided by to the NCAA by the Datalys Center for Sports Injury Research and Prevention.

Concussion Management

- Rule and policy enforcement
- Properly fitted equipment
- Coaching techniques

- Education
- Mandates for strict protocols for return to play

The NCAA Policy-All Divisions:

- Institution must have a concussion management plan on file that **mandates** removal of a student-athlete who exhibits signs, symptoms or behaviors consistent with a concussion from practice or competition.
- Those student-athletes subsequently must 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.

NCAA Football Rules Committee

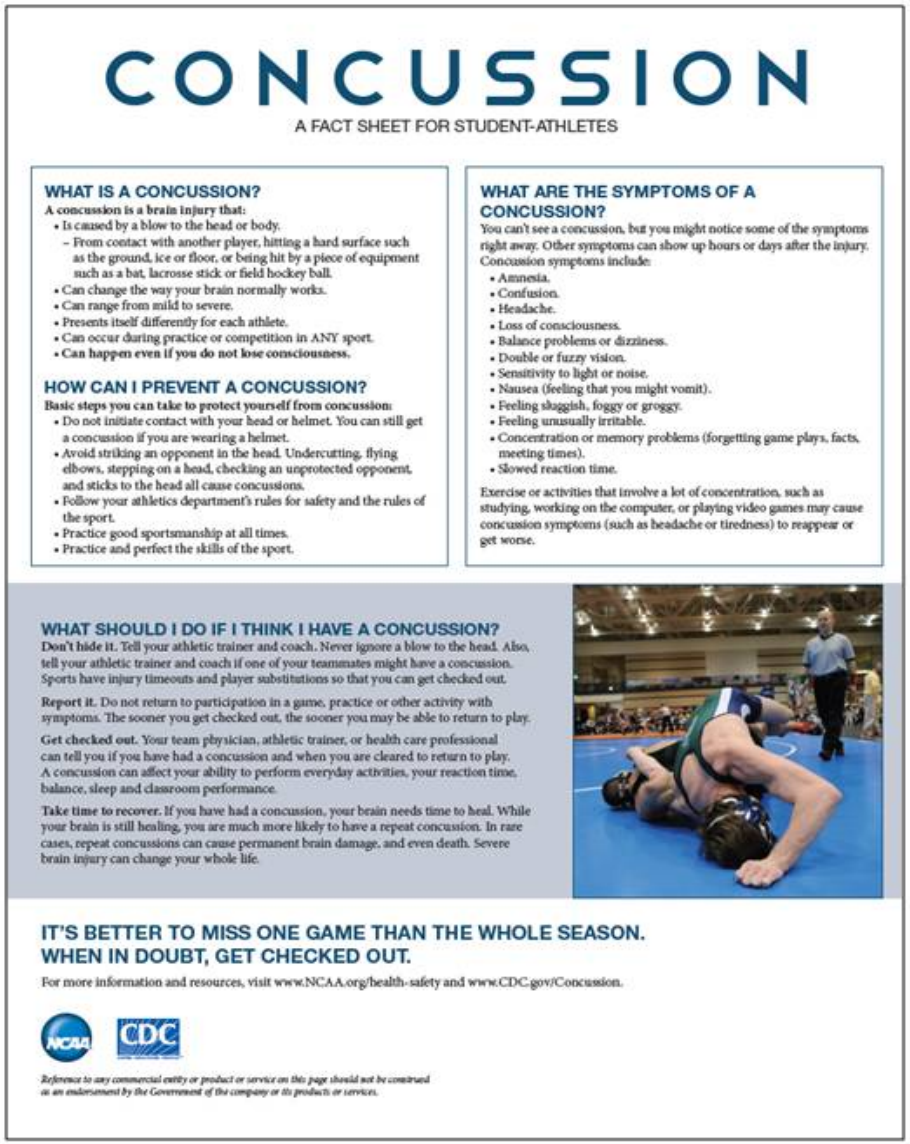
- Response: modified the rules to require removing from play student-athletes suffering any injury (including exhibiting signs of concussion) until cleared to return by appropriate medical professional.
- The official will declare a timeout and the player(s) must leave the game. He must remain out of the game for at least one down.

Impact of Changes

- More Focus on the injured athlete
- More Focus on Concussion Management Protocols
- Return to play decisions
- Reduced Risk of debilitating injuries

Education

- **Who:**
  - Athletes
  - Coaches
  - Administrators
  - Medical Personnel
- **What:**
  - "Concussion"
  - Concussion Policy/Protocol
- **When:**
  - Annually



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 and www.CDC.gov/Concussion.

NCAA CDC

Reference to any commercial entity or product or service on this page should not be construed as an endorsement by the Government of the company or its products or services.

Game Time Issues

- Multiple mechanism
- Athletes often do not report symptoms
- Many athletes may seemingly *"normalize"* within minutes of an injury
- Many symptoms are delayed
- Many symptoms are subtle
- Symptoms are worse with exertion

Suspect a Concussion

What the game official may **observe:**

- Physical signs (such as unsteadiness)
- Impaired brain function (e.g. confusion, slow response)
- **Abnormal behavior-(irritable)**

SIGNS- What you might **Observe**

- Athlete appears dazed or stunned
- Confused about an assignment
- Forgets an instruction
- Asks teammates orientation questions
- Moves clumsily, loses balance
- Sluggish
- Goes to the wrong huddle or sideline
- Irritable, excessive emotions
- Slow reaction- play passes them by
- Loss of consciousness

SYMPTOMS What the athlete might **Describe**

- Double vision
- Blurry, fuzzy vision
- Dizzy, confused
- Headache
- Unable to focus
- Loss of memory
- Ringing ears
- Pressure in head
- Feeling tired
- Light hurts my eyes
- Feels nauseous

Sideline Protocols

- If suspected cannot return to play
- Strict guidelines for On field assessment
- NO ONE returns while still symptomatic
- 24 hours of no symptoms before resume measured activity

Return to Play

- Initial Concussive Episode
- Reduced Risk of debilitating injuries
  - Second impact syndrome
  - Multiple concussion
  - Post concussion syndrome

Post Concussive Symptoms

- Headache
- Nausea
- Vomiting
- Balance problems
- Dizziness
- Fatigue
- Trouble falling asleep
- Sleeping more than usual
- Sleeping less than usual
- Drowsiness
- Sensitivity to light
- Sensitivity to noise
- Irritability
- Sadness
- Nervousness
- Feeling more emotional
- Numbness or tingling
- Feeling slowed down
- Feeling mentally “foggy”
- Difficulty concentrating
- Difficulty remembering
- Visual problems

RTP-Return to play/practice

- 24 hours (or longer) for each stage
  - 1. rest until asymptomatic (physical and mental rest)
  - 2. light aerobic exercise
  - 3. sport-specific exercise
  - 4. non-contact training drills
  - 5. full contact training after medical clearance
  - 6. return to competition

Summary

- Concussions occur when a blow to the head or neck interrupts brain function.
- The effects of these concussions vary between individuals, and many concussions are undiagnosed and unreported.
- Most athletes recover from concussions completely and can return to play following an appropriate period of recovery.
- Sharing information about concussions and putting in place rules and standardized protocols can help reduce the risk of serious or long term injuries to the athlete.
- Maintain a high level of suspicion.

QUESTIONS?

Best Practice

- SCAT 2 On field assessment
- Individualized RTP decisions
- NO ONE returns while still symptomatic
- 24 hours of no sx before resume measured activity
- Athletes must be asymptomatic both at rest, w/ cognition, and w/ exertion
- Must have normal cognitive function

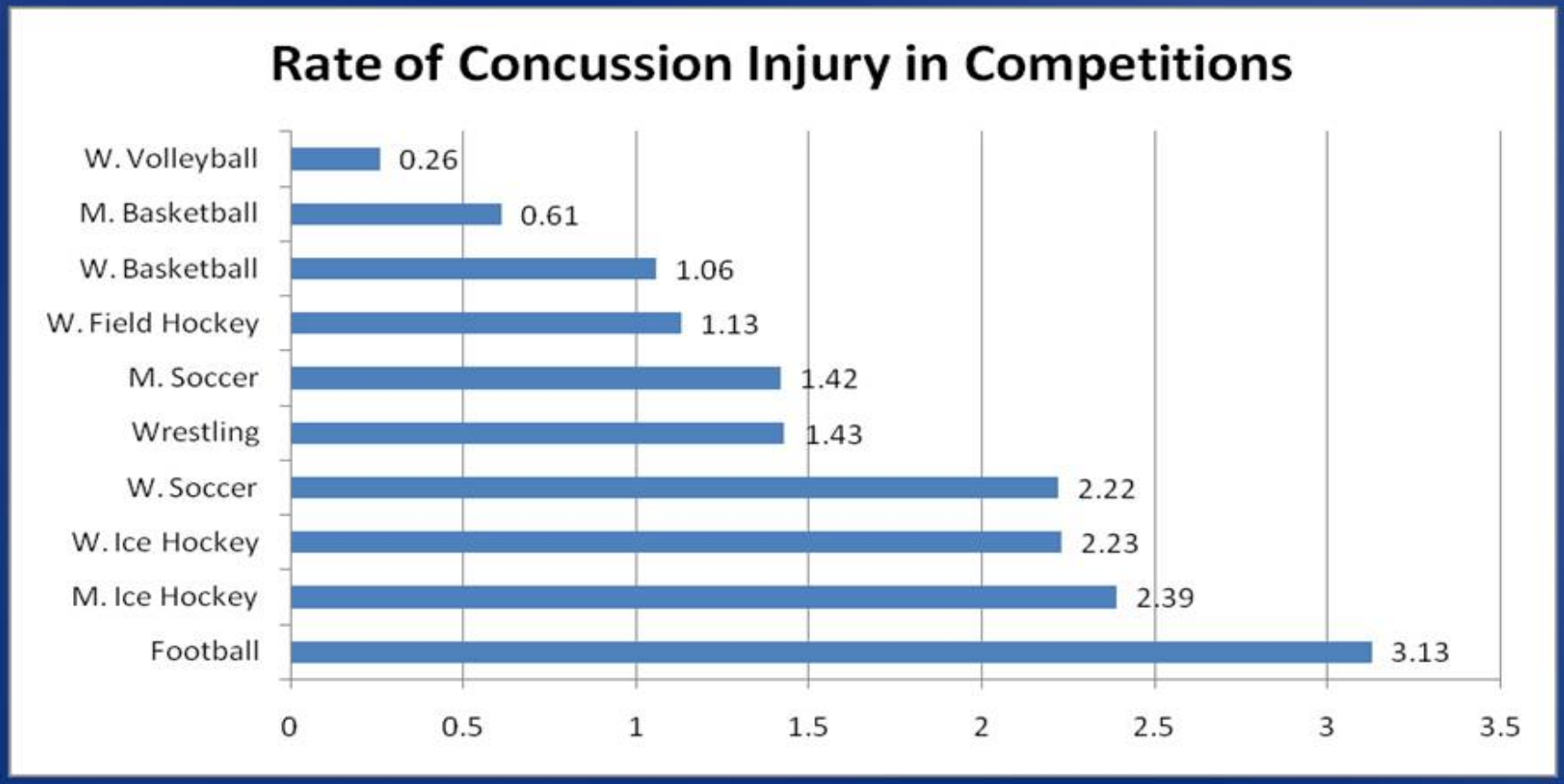
- A player with diagnosed concussion should not be allowed to return to play on the day of injury. Occasionally, in adult athletes, there may be return to play on the same day as the injury. (See section 4.2.)

- There was unanimous agreement to abandon the Simple vs. Complex terminology that had been proposed in the Prague agreement statement, as the panel felt that the terminology itself did not fully describe the entities. However, the panel unanimously retained the concept that the majority (80%-90%) of concussions resolve in a short (7-10 day) period, although the recovery time frame may be longer in children and adolescents.[2]

- ***Injured Player Procedures***
- **EFFECTIVE IN 2010 (Editorial Clarification)**
- The revised language in Rule 3-3-5-a is as follows:
- **Injury Timeout**
- ARTICLE 5. a. In the event of an injured player(s):
- 1. An official will declare a timeout and the player(s) must leave the game. He must remain out of the game for at least one down. When in question, officials will take a timeout for an injured player.
- 2. The player(s) may not return to the game until he receives approval of professional medical personnel designated by his institution.
- 3. Officials and coaches shall give special attention to players who exhibit signs of a concussion.
- 4. Whenever a participant (player or game official) suffers a laceration or wound from which oozing or bleeding occurs, the player or game official shall go to the team area and be given appropriate medical treatment. He may not return to the game without approval of medical personnel.

University of Michigan
Medical School

Rates of Injury



Concussion injury data provided by to the NCAA by the Datalys Center for Sports Injury Research and Prevention.