

# NCAA CONCUSSION UPDATE



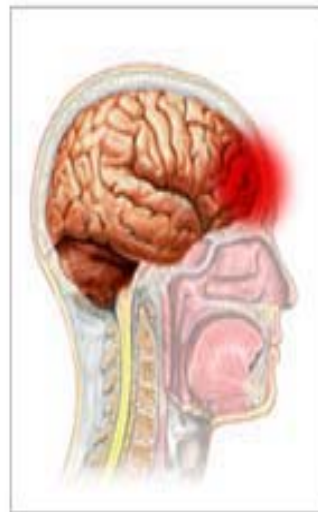
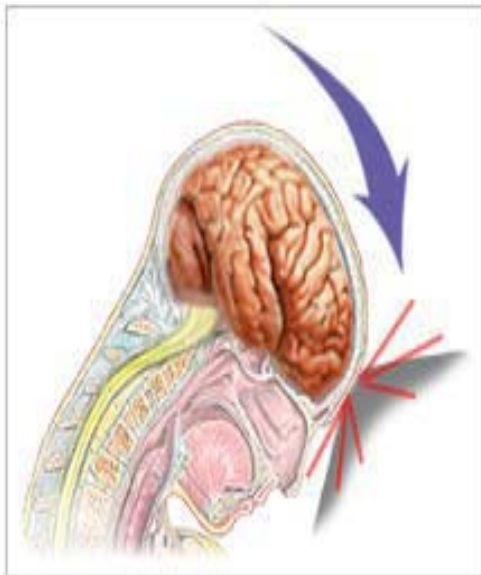
**RHONDA HYATT, ATC**

# What is a Concussion?

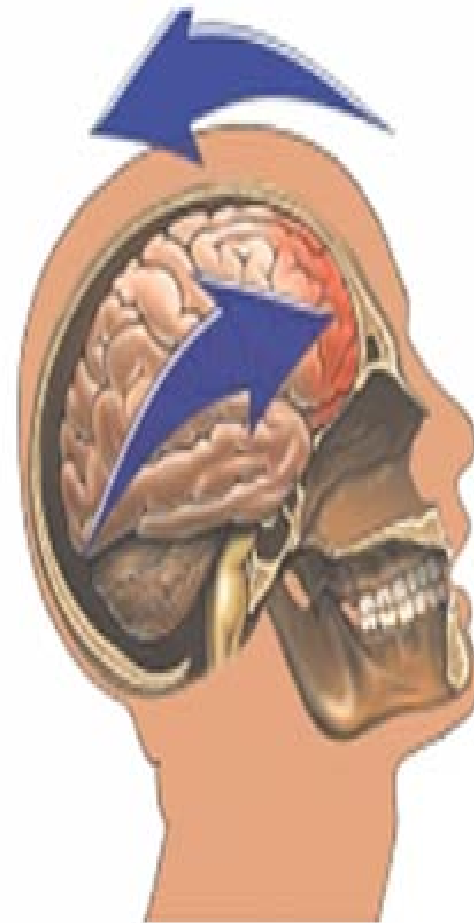


- A type of Traumatic Brain Injury
- A **concussion** is a disturbance in brain function caused by a direct or indirect force to the head.
- It results in a variety of nonspecific symptoms and *often* does not involve loss of consciousness.

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



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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.

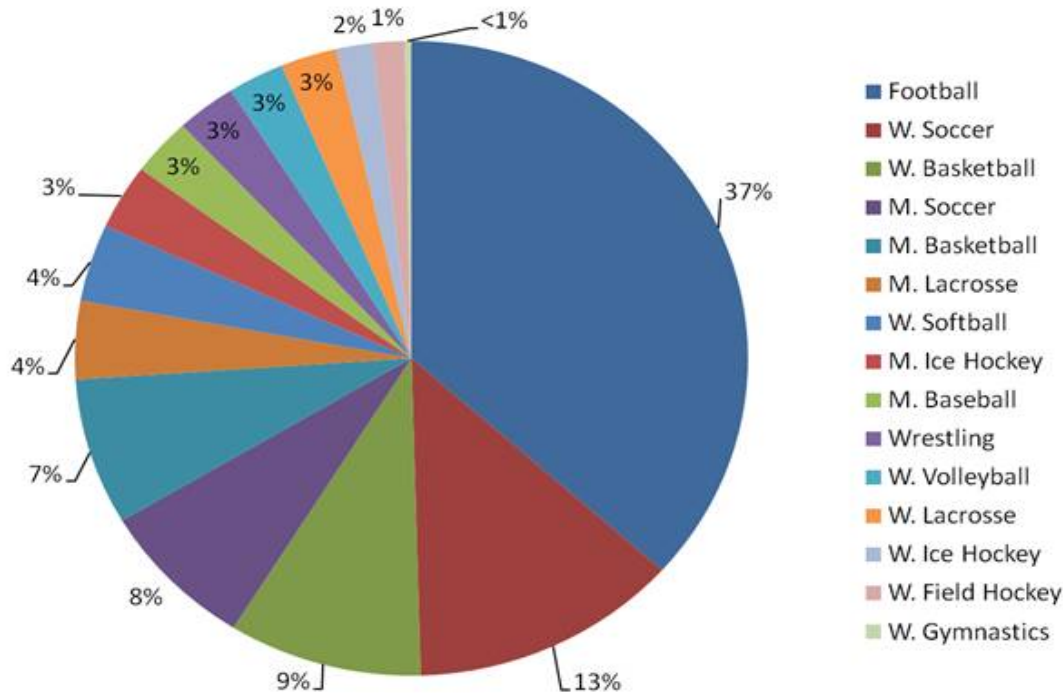


University of Michigan  
Medical School

# Annual Distribution of Concussion in NCAA Sports



Distribution of Concussions from Practice and Competition by Sport based on National Annual Estimates



*Estimated  
10,000 each  
year*

Concussion injury data provided by to the NCAA by the  
Datayls 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](http://www.NCAA.org/health-safety) and [www.CDC.gov/Concussion](http://www.CDC.gov/Concussion).



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# 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.<sup>2</sup>

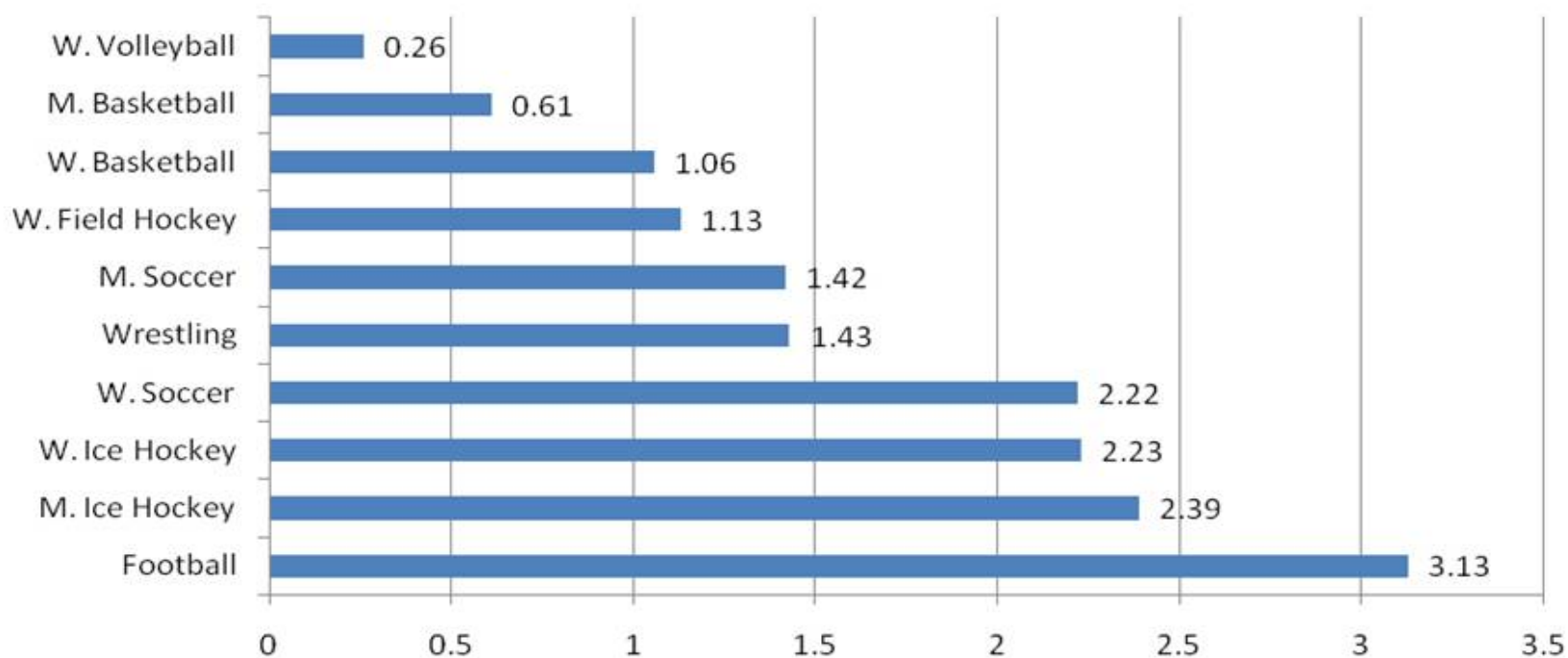




- ***Injured Player Procedures***
- **EFFECTIVE IN 2010 (Editorial Clarification)**
- The revised language in Rule 3-3-5-a is as follows:
- **Injury Timeout**
- ARTICLE 5. a. In the event of an injured player(s):
  - 1. An official will declare a timeout and the player(s) must leave the game. He must 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.

# Rates of Injury

## Rate of Concussion Injury in Competitions



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