

SPORT-RELATED CONCUSSION 101

Sport Management Institute

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OVERVIEW

- DEFINITION
- CONCUSSION EVALUATION
- SYMPTOMS & SIGNS
- CONCUSSION MANAGEMENT

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QUIZ TIME!

1. A concussion is just a “bump” to the head.
2. A concussion is usually diagnosed by CT scan/MRI.
3. Loss of consciousness is required to be called a concussion.
4. A parent should awaken a child who falls asleep after a head injury.
5. Physician clearance allows an athlete to return to play.

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What is a concussion?

- It is a type of mild traumatic brain injury (mTBI). It is NOT a “ding” or “bell rung”.
- Concussion: A violent jar or shock; to shake violently.
- An indirect force – a hit to the body, not the head- can cause a brain injury. One does NOT have to get hit in the head/face to result in being concussed.

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ALL CONCUSSIONS ARE
SERIOUS.

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South Carolina State Law ⁽¹⁾

- Signed by Gov. Nikki Haley on June 7, 2013.
- Requires concussion info distributed to all athletes, parents & coaches.
- If concussion suspected, athlete removed from play, evaluated by MD, AT, PA or NP.
- Must obtain written clearance by MD.

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5TH International Conference on Concussion ⁽²⁾

October, 2016

First conference held in 2001
Consensus Statement on Concussion
in Sport

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“Sport-Related Concussion”

A traumatic brain injury induced by
biomechanical forces. (1)

11 R’s

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11 R's

- 1. Recognize
- 2. Remove
- 3. Re-evaluate
- 4. Rest
- 5. Rehabilitate
- 6. Refer
- 7. Recover
- 8. Return to play
- 9. Reconsider
- 10. Residual effects
- 11. Risk reduction

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4 Most Important Steps

1. Recognize. Observe Keep eyes on event!
2. Remove. STOP further activity.
3. Refer. Inform parent & coach.
4. Recovery Begins with monitoring.

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Concussion

- An evolving injury
- Rapidly changing clinical signs & symptoms
- Among most complex injuries in sports to diagnose, assess and manage
- There is no perfect diagnostic test

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A concussion is not just a “bump on the head”

- Symptoms can range from mild to severe
- Usually include headache, dizziness, balance issues, confusion
- The severity of symptoms cannot be predicted at the time of injury

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Mechanism of Injury

- **A history of a blow to the head or body – the mechanism of injury – should warrant immediate removal of athlete from activity and begin observation of symptoms.**
- “When in doubt, sit them out”.

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Common Concussion **SYMPTOMS:**

- | | | |
|----------------------------|--------------------|----------------------|
| - Headache | - Dizziness | - Nausea |
| - Confusion | - Pressure in head | - Blurry vision |
| - Sensitive to light/noise | - Memory loss | - Neck pain |
| - Feel “slowed down” | - Feel “in a fog” | - “Don’t feel right” |
| - Difficulty concentrating | - Drowsiness | - More emotional |
| - Irritability | - Sadness | - Anxious/Nervous |
- Score on 0-6 scale (none = 0, 1-2 mild, 3-4 moderate, 5-6 severe)

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Common Concussion **SIGNS**

- Appears dazed or stunned
- Confused; unsure of orientation(name, venue)
- Forgets instructions
- Moves clumsily; poor balance, stumbles
- Answers questions slowly, inaccurately or
- Behavior/Mood changes (aggressive, sobbing)
- Just “not feeling right”
- Vomiting

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Pre-existing conditions can affect concussions:

- History of prior concussions - Age
- Motion sickness - Gender
- Visual problems - Migraines
- Learning disabilities

- ALL may increase chances of sustaining a TBI
or lengthening recovery

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CT SCANS CANNOT DETECT TBI.

**A CONCUSSION CANNOT BE
DETECTED BY MRI.**

**A CONCUSSION IS A “FUNCTIONAL”
INJURY, NOT STRUCTURAL. (3)**

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CT scan or an MRI:

- Used to rule out bleeding in the brain
- NOT a test for concussion
- A negative scan does not mean a concussion did not occur

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Dangerous Signs of Concussion

- Loss of consciousness greater than 1 minute
- Unequal pupils
- Increasing HA (despite normal Tylenol dose)
- Vomiting, convulsions, seizures
- Slurred speech
- Increasing confusion or agitation

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Keeping the injury to themselves...

- 40-70% of HS football players failed to report symptoms ⁽⁴⁾:
- “wasn’t serious enough to report”
- “Didn’t want to leave game”
- “Didn’t realize I had a concussion ”
- “Didn’t want to let down teammates”

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Back to four “R’s”

Recognize

Remove

Refer

Recover

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Do the RIGHT THING!

When in doubt,

Sit them out!

Mechanism, Signs

and/or

Symptoms

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Recognize:

- Player down:
- Standard emergency management principles:
- Conscious? Breathing? Pulse?
- Clear cervical spine injury!
 - “Where does neck hurt?”
 - “How bad does neck hurt”?
 - “Can move extremities”? Compare strength

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REMOVE

- Safely remove athlete from practice/play
- Assess symptoms
- Never leave athlete alone
- Monitor for deterioration
- NEVER return to activity on same day
- Do NOT allow athlete to drive

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One symptom.....or many....

- Daily symptom check
- Physician clearance
- 5-day Return to Play ONLY, after symptoms subside, even with MD clearance!

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QUESTIONS?

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References

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4. Register-Mihalik, Johna K., GuskiewiczKM, McLeod TC, Linnan LA, Mueller FO, Marshall SW. Knowledge, attitude, and concussion-reporting behaviors among high school athletes: a preliminary study. Journal of Athletic Training. 2012; 48(5):645-653.

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Mira 2 years, 10 months



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