



We know children.

Concussions & the Classroom

By Rebecca Docter, MA, ATC

Disclosures

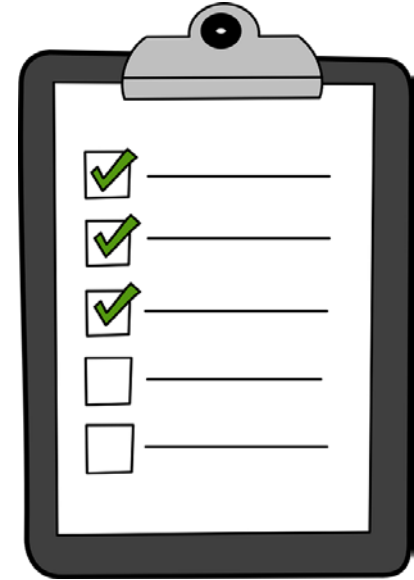


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- No Disclosures

Objectives

- Concussion Legislation—NE
- Cognitive Symptoms
- Classroom Accommodations
- Unique Situations
- Underlying Conditions
- Post-Concussion Syndrome
- Concussion Rehabilitation



Concussion Legislation

- NE legislation—passed on July 1, 2012
 - LB 260 “Concussion Awareness Act”
- Amended in 2014—added RTL
- Requires each school to provide academic accommodations for students with concussion



NE Concussion Awareness Act



We know children.

- **3 components**—requires all public, private, and parochial schools, as well as organized youth sports sponsored by villages, cities, businesses, or non-profit organizations for children ages 19 & under to provide:
 - **Education**—coaches, athletes, and parents must be provided annual education about the risks, symptoms, and and how to seek medical attention for concussion
 - **Removal from play**—any athlete suspected of concussion injury shall be removed from play and held out of play until evaluated by a licensed healthcare professional
 - **Return to play**—athletes will not be allowed to return to play until written clearance from an appropriate licensed healthcare professional AND hand written approval from the parent/guardian is obtained
 - ****Licensed healthcare professional may be an MD, PA, NP, AT, neuropsychologist, or any licensed healthcare worker who is specifically trained in pediatric traumatic brain injury.**

Return to Learn Legislation

- 19 (c) Establish a return to learn protocol for students
- 20 that have sustained a concussion. The return to learn protocol shall
- 21 recognize that students who have sustained a concussion and returned
- 22 to school may need informal or formal accommodations, modifications
- 23 of curriculum, and monitoring by medical or academic staff until the
- 24 student is fully recovered.
- This bill went into effect July 18th, 2014!!!!

Cognitive Symptoms:

- Difficulty with concentration
- Difficulty remembering
- Delayed processing speed
- Delayed speech
- Difficulty with multi-tasking
- Mentally foggy
- Short & long-term memory deficits
- Light & noise sensitivity



- History
 - Bridging the Gap Document—NDE
 - Promotes Multi-disciplinary team
 - Patient specific
 - Updated 2nd ed. In 5 yrs.
 - <https://cdn.education.ne.gov/wp-content/uploads/2018/12/Return-to-Learn-Bridging-the-Gap-2nd-Edition.pdf>

Return to Learn

- Can be informal or formal
- Does not follow a stepwise protocol like RTP
- Does not require Dr. note to start
- Should be initiated as soon as the school is aware of injury
- Communication is Key—Release of information (ROI)

Return to Learn

- When should my child go back to school??
 - Initial rest for only 1-2 days with a gradual return to school showed less symptoms than 5 days of rest at home
 - Thomas et al., 2015
 - As soon as symptoms are “tolerable, intermittent and amenable to rest”
 - Halstead et. Al., 2013

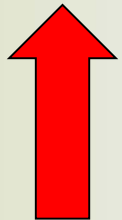
Return to Learn

- May consider $\frac{1}{2}$ days or 1-2 hours initially
- Progress to full days as tolerable
- Must be full academics to participate in extracurricular activities





Too little rest = prolonged recovery



Too much rest = prolonged recovery

Return to Learn



Classroom Accommodations

- Shortened school days
- Schedule frequent “mental” breaks
- Decrease workload to pertinent content only
- Provide extra time to complete tasks and homework
- Allow open book/notes for tests/quizzes
- Provide printed notes prior to classroom instruction
- Alternate colored sheets for printed notes
- Lunch in a “quiet” place, while minimizing seclusion

Classroom Accommodations

- Alternative learning strategies—audio books, etc.
- Alternative testing strategies—oral testing, chunking, word banks, etc.
- Allow use of smart phone or recorder for lecture and key concepts
- Allow hat to be worn for light sensitivity vs. sunglasses
- Decrease computer/technology usage
- Limit isolation

Unique Situations

- High/low performing students prior to injury
- Finals week
- End of school year
- Dual Credit
- Standardized Testing

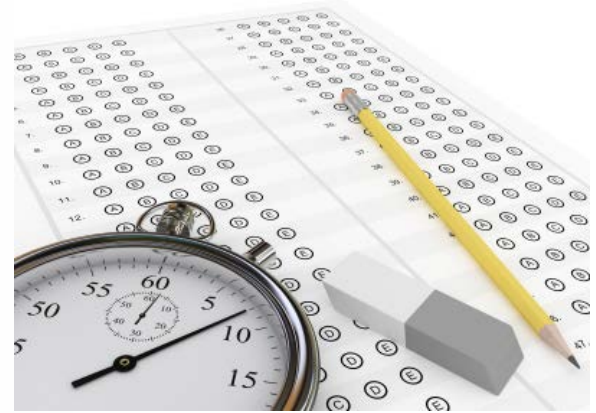


Standardized Testing

- ACT, SAT, Ne-SA, AP, etc.
- Initiated by the school
- Provide current accommodations
- May provide Dr. note with diagnosis
- Delay testing if possible

Standardized Testing

- Extra time
- Larger font
- Stop the clock timing
- Visual time signals
- Using a scribe for essays
- Testing over multiple days



Long-Term Accommodations

- School District Dependent:
 - SAT
 - IEP
 - Health Care Plan
 - 504 Plan
 - SPED Services



- Student Assistant Team:
 - Temporary academic adjustments based on need
 - Managed by school academic team
 - Ability to end adjustments timely

- Individualized Education Plan
 - Dictates what accommodations are necessary
 - Individual based
 - Team approach
 - Can be short or long term

Health Care Plan

- Some school districts have specific plans:
Ailments/disease/illness
- Similar to SAT and IEP for concussion, or other similar health concern (broken bones, etc)
- Short-term vs. Long-term

- Rehabilitation act of 1973
- Requirements:
 - Physical or mental disability that affects ADL's
 - Team decision
 - Typically housed in SPED Dept.
 - Long-term vs. typical 1-4 weeks

SPED Services

- Concussions are typically seen as a short-term disability
- Rarely—long term accommodations are needed
- Moderate traumatic brain injury

Unique Solutions

- Freeze grade
- Summer school
- Repeat course
- Drop classes/add study hall
- Counseling Center
- Academic assistance

What about PE Class??

- Symptom-limited light physical activity while recovering from concussion is OK
- Controlled environment
- Follow school policy



Extracurricular Activities?

- Band/Show Choir/Dance/ROTC
 - Return to learn
 - Accommodate per subject
 - Patient specific
- Club sports
 - Follow return to play protocol/state legislation
 - If unable to play school sport, cannot participate in club sports

Post-Concussion Syndrome

- Small percentage do not resolve after 4 weeks
 - Initial severity of symptoms
 - **ANXIETY**
 - Depression
 - Migraines/HA disorders
 - ADHD/Learning disorders
 - Visual deficits



Concussion Rehabilitation

- Old management
 - Rest until asymptomatic
 - Lengthy
- New management
 - Initiate physical activity while symptomatic
 - Can decrease healing time

Concussion Rehabilitation

- PT
- OT
- SLP
- Neuropsych
- Optometry
- Behavioral Health



Concussion Rehabilitation

- Physical Therapy
 - Increase tolerance to physical activity
 - Increase HR while managing symptoms
 - Balance activities
- Occupational Therapy
 - Ocular motor deficits
- Speech Therapy
 - Formal Cognitive testing
 - Cognitive strategies for school work

Concussion Rehabilitation

- Neuropsych
 - Formal neurological testing
 - Lengthy
 - Timely evaluation
- Optometry
 - Evaluate & treat how the eye and brain work together
- Behavioral Health
 - Help to manage emotional sx & new acquired behaviors

School--Medical—Partnership

Medical professionals can help identify the health & physical **issues**.

School professionals can help identify appropriate **academic supports**.

- KEY= Communication between Medical, School, & Family

Recurrent Concussion

- Increased risk
 - Additional concussions
 - More severe/longer duration
 - Less of a force causing similar injury
- Long-term effects still being researched
 - CTE
 - Biomarkers

Keys to Management

- Identify Early
- Manage Properly
 - Prevent Second Impact Syndrome
 - Manage post concussive symptoms
 - Provide academic accommodations during recovery
- When managed well, recovery is quicker, & second injury is prevented.

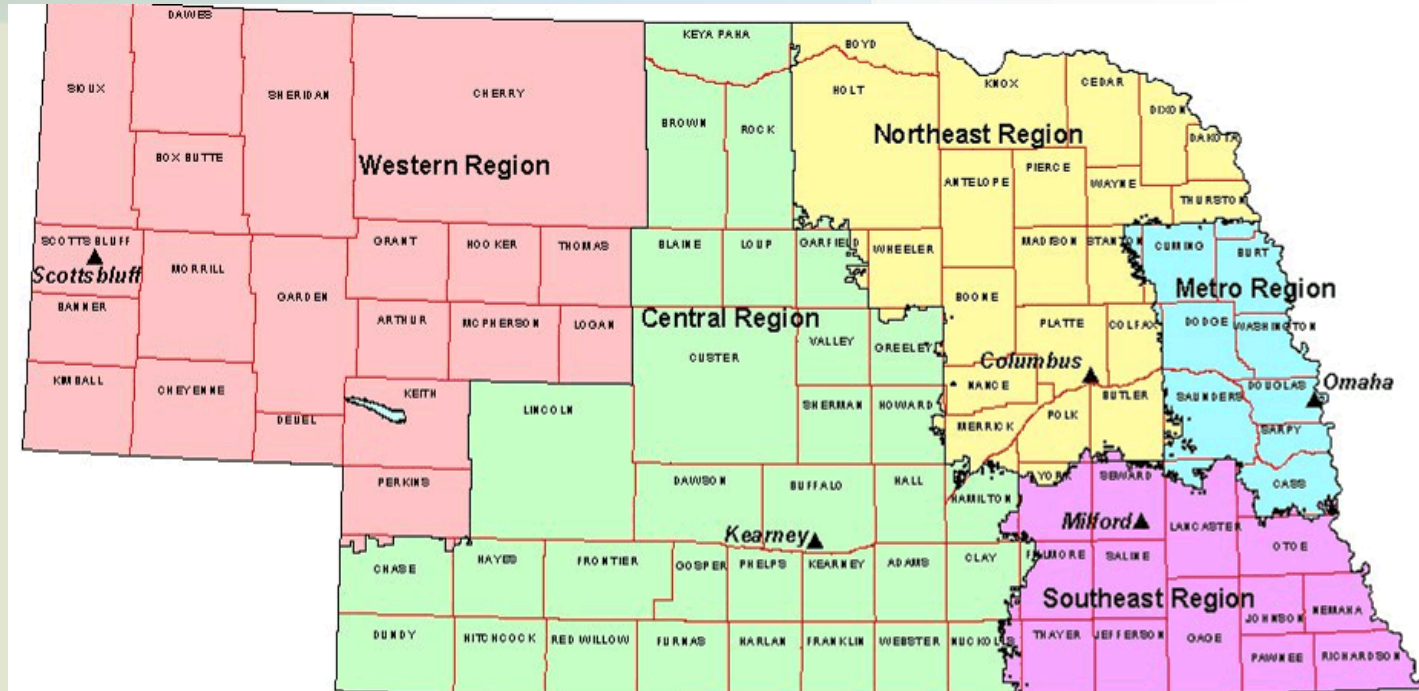


- BIA-NE (Brain Injury Alliance of NE)
- BIRSST (Brain Injury Regional School Support Team)
- NE Dept. of Education
- CDC—Heads up Concussion
- REAP manuals (Remove/Reduce, Educate, Accommodate/Adjust, Pace)

Brain Injury Alliance--NE

- Multifactorial resource for brain injury of all levels
- Educational resources on concussion:
- <https://biance.org/concussion/resources/>
 - Coaches
 - Parents
 - Educators

BIRSST Regions



BIRSST Contacts

Central Region	Jamie Christensen ESU # 11 412 W. 14 th Avenue, P.O. Box 858 Holdrege, NE 68949	(308)-655-1614 jamchris@esu11.org
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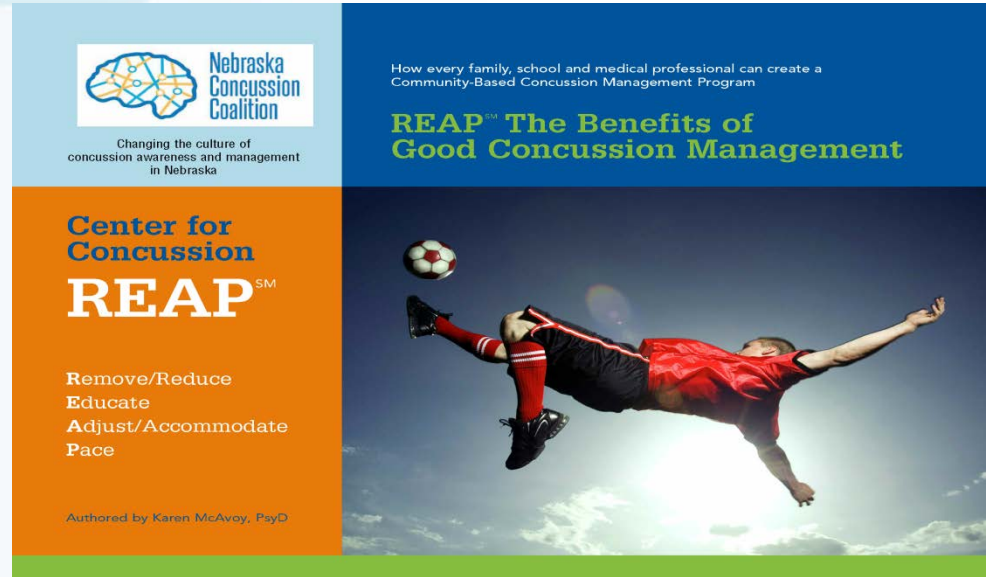
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- Heads up Specialized Online Education & Resources
 - <https://www.cdc.gov/headsup/schools/index.html>
 - School Nurses
 - Teachers
 - Counselors
 - School Professionals
 - Parents

REAP Manual

- REAP Manual
 - Originated in CO by Dr. Karen McAvoy
 - Adapted for NE concussion laws
 - REAP Website:

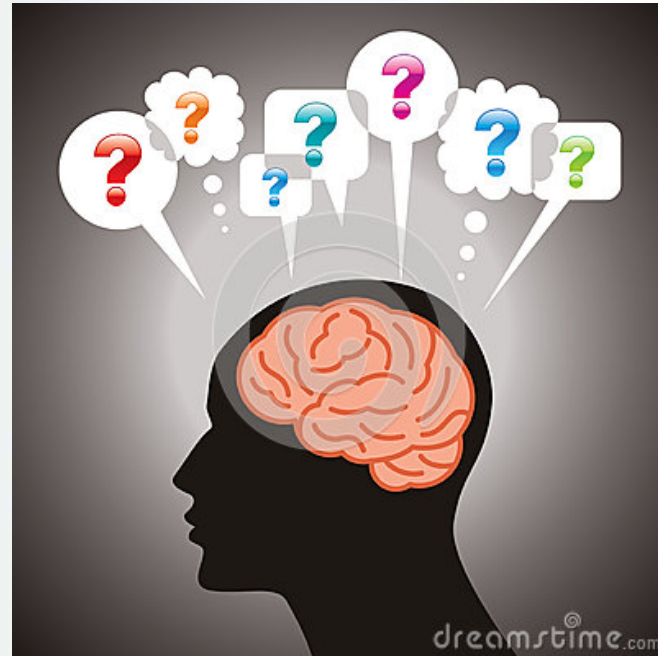
<http://biance.org/concussion/reap-manual/html>



Conclusion

- Each concussion is unique
- Academic accommodations can be formal or informal
- Do not need Dr. note to begin
- Accommodations should be modifiable throughout the healing process
- Must follow NE state law
- Communication is KEY!!!!

Questions/Comments



References

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