

BRIDGING THE GAP

From
CONCUSSION
To the
CLASSROOM

February 2014



NEBRASKA DEPARTMENT OF EDUCATION

*Return
to
Learn*



BRIDGING THE GAP FROM CONCUSSION TO THE CLASSROOM: RETURN TO LEARN



On April 8, 2011, the Nebraska Legislature passed the Concussion Awareness Act on a vote of 43- 0. The Concussion Awareness Act became effective in Nebraska on July 1, 2012. The goal of the Act is to provide a consistent means to identify and manage concussions and help ensure the safety of those involved in youth sports.

The Concussion Awareness Act contains the three tenets of model legislation as described by the Brain Injury Association and the National Football League.

1. Education: Coaches, Parents and Student Athletes
2. Removal from Play – If a concussion is reasonably suspected
3. Clearance by a Licensed Health Care Professional

While Nebraska law requires a specified Return to Play protocol, equally important in the academic setting is a Return to Activity policy. “Bridging the Gap from Concussion to the Classroom: Return to Learn” was developed to provide guidance to assist Nebraska school districts in developing a concussion management policy, including the provision of appropriate classroom adjustments for concussed students facing learning challenges.

Just as effective concussion management requires communication and collaboration, this document has been developed, reviewed and edited collaboratively by a Concussion Task Force comprised of Nebraska Brain injury School Support Teams (BIRSST) and the following individuals representing several disciplines:

Nova Adams, Educational Liaison, Madonna Rehabilitation Hospital

Cindy Brunken, Southeast BIRSST Team, Special Education Supervisor, Lincoln Public Schools

Michelle Hawley-Grieser, Parent, Nebraska Brain Injury Advisory Council

Crystal Kjar, Lincoln Southwest High School, Head Athletic Trainer

Rusty McKune, Coordinator, the Nebraska Medical Center, Sports Medicine Program

Kody Moffatt, MD, Pediatrics and Pediatric Sports Medicine

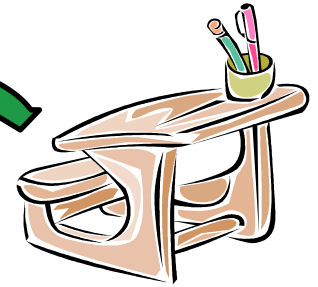
Peg Ogea-Ginsburg, Nebraska Department of Health and Human Services, Office of Injury Prevention

Peggy Reisher, Executive Director, Nebraska Brain injury Association

Rose Dymacek, Education Specialist, Nebraska Department of Education, Office of Special Education



BRIDGING THE GAP FROM CONCUSSION TO THE CLASSROOM: RETURN TO LEARN



What is a Brain Injury?

Acquired Brain Injury (ABI)

- An acquired brain injury is an injury to the brain, which is not hereditary, congenital or degenerative that has occurred after birth. (Includes anoxia, aneurysms, infections to the brain and stroke.)

Traumatic Brain Injury (TBI)

- A TBI is caused by a bump, blow or jolt to the head or a penetrating head injury that disrupts the normal function of the brain. Not all blows or jolts to the head result in a TBI. The severity of a TBI may range from "mild," i.e., a brief change in mental status or consciousness to "severe," i.e., an extended period of unconsciousness or amnesia after the injury. The majority of TBIs that occur each year are concussions or other forms of mild TBI.

Concussions

- A concussion is a type of **traumatic brain injury**, or TBI, caused by a bump, blow, or jolt to the head. A concussion is **any head trauma that causes an altered mental state that may or may not involve a loss of consciousness. Only 10 percent of concussions involve a loss of consciousness!**
- Concussions can also occur following a fall or a blow to the body that causes the head and brain to move back and forth quickly.
- This sudden movement can cause the brain to bounce around in the skull, stretching and damaging the brain cells and creating chemical changes in the brain.
- Health care professionals may describe a concussion as a "mild" brain injury because concussions are usually not life-threatening. Even so, their effects can be serious. (Centers for Disease Control & Prevention)



**A CONCUSSION
IS
A BRAIN INJURY!**

Incidence of Youth Concussions in Nebraska

Figure 1. Concussion rates among persons aged 5-19 years, by month – Nebraska 2008-2012

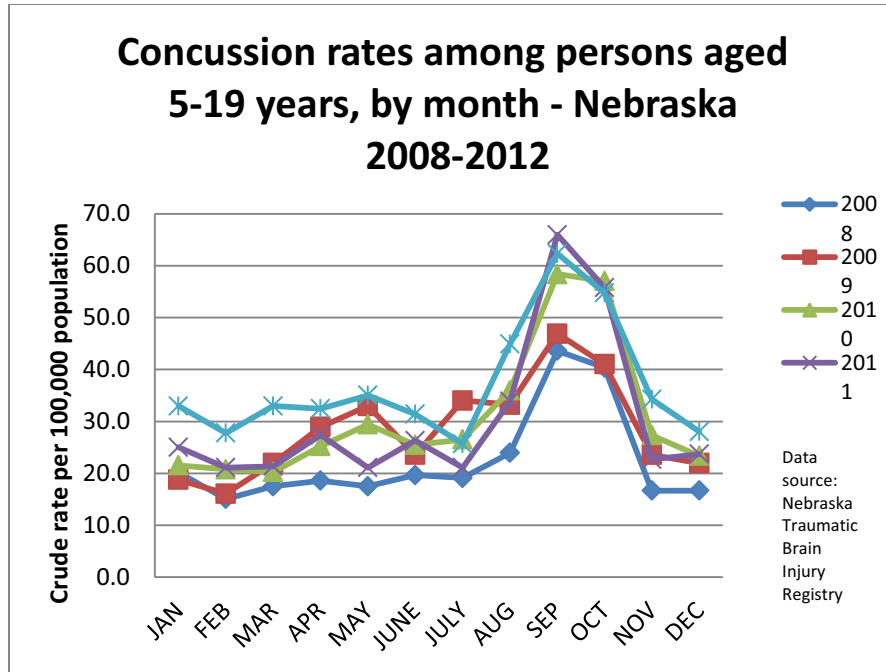
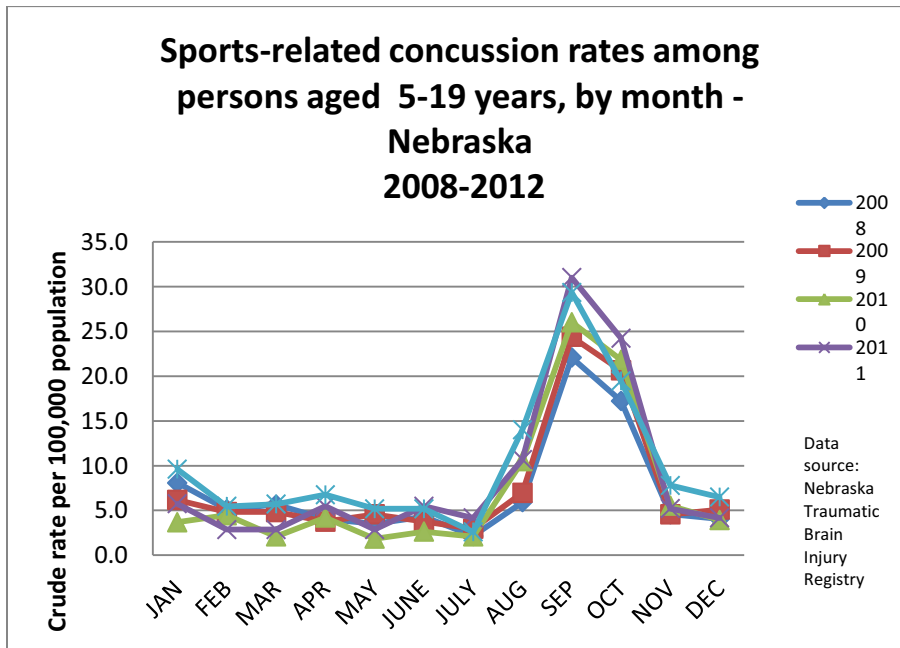


Figure 2. Sports-related concussion rates among persons aged 5-19 years, by month – Nebraska 2008-2012



Nebraska Department of Health and Human Services, 2013

Both figures above show a peak in concussion rates among school-aged Nebraskans in September and October. This trend has been consistent over the past 5 years. Figure 1 also shows that higher rates of concussions were diagnosed in 2012. These graphs represent persons treated in the office of a physician or psychologist or admitted to or treated at a hospital or a rehabilitation center located within a hospital in Nebraska.

Why are Concussions Such a Big Deal?

- **A CONCUSSION IS A BRAIN INJURY!**
- A concussion can occur from an impact to the head. The most common cause of a concussion is a whiplash type injury, a rapid acceleration of the head.
- Most concussions (90%) occur without loss of consciousness!
- A “ding,” “getting your bell rung,” or what seems to be a mild bump, blow or jolt to the head can be serious and can change the way the brain normally works! (Center for Disease Control 2013).
- Because of changes in the neurophysiology of the brain, symptoms may continue to develop over the next few hours following an injury.
- After a concussion, among other effects, connections within the brain become stressed, resulting in the breaking of some connections between different brain areas and limiting the ability of the brain to process information efficiently and quickly. (Molfese 2013)
- These changes can lead to a set of symptoms affecting the student’s cognitive, physical, emotional and sleep functions, which may result in reduced ability to do tasks at home, at school, or work.
- During this time, returning to play or full-time academics before symptoms have cleared can result in **prolonged recovery time or risk of further injury.**
- Ignoring the symptoms and trying to “tough it out” often makes symptoms worse!
- “Second Impact Syndrome” may occur when a brain already injured takes another blow or hit before the brain recovers from the first –usually within a short period of time (hours, days, or weeks). A repeat concussion can slow recovery or increase the likelihood of having long-term problems. In rare cases, repeat concussions can result in edema (brain swelling), permanent brain damage and even death. (Center for Disease Control 2013)
- As the chemistry of the brain returns to normal, the symptoms begin to subside and for most people, they resolve within 1 to 6 weeks.
- **During the recovery period, it is very important that individuals are monitored for full resolution of symptoms and referred if further evaluation or treatment is needed.** (Terryberry-Spohr 2013)



Symptoms of TBI/Concussion

School professionals can best support a student's return to school by understanding the effects of concussion and providing the needed academic adjustments and supports. Knowledge of concussion symptoms can help the student and the school team identify the specific needs of the student, monitor changes and provide appropriate accommodations to facilitate the student's recovery and minimize the pressure to return to activities too soon. (CDC 2013)

Symptoms of TBI/Concussion that may affect school performance fall into four categories:

- Thinking/Cognitive/Remembering
- Sleep
- Physical Symptoms
- Emotional/Mood Symptoms



Thinking/Cognitive Red Flags

Look for increased difficulty with:

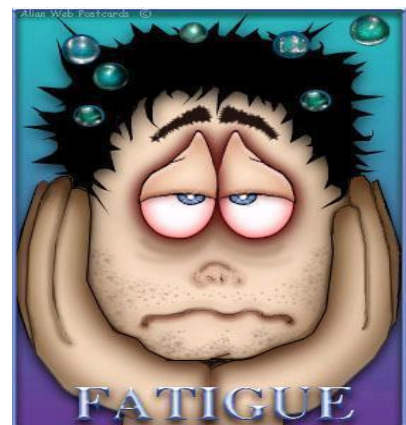
- Thinking clearly
- Concentrating, Staying on task
- Remembering new information
- Slowed response or processing of information (Feeling slowed down)
- Reduced academic performance



Sleep Red Flags

Sleep symptoms tend to last longer than other symptoms. Look for increased:

- Drowsiness
- Sleeps more than usual
- Sleeps less than usual
- Difficulty falling asleep
- Fatigue – tired, having no energy





Physical Red Flags

Look for increased difficulty with:

- Headaches
- Fuzzy or Blurred Vision (visual problems)
- Balance problems
- Dizziness
- Nausea, vomiting
- Sensitivity to light
- Sensitivity to noise
- Disorientation



Social Emotional Red Flags

Look for increased difficulty with:

- Irritability
- Sadness
- More emotional
- Changes in mood
- Nervousness
- Anxiety



Return to Activity = Return to Learn + Return to Play

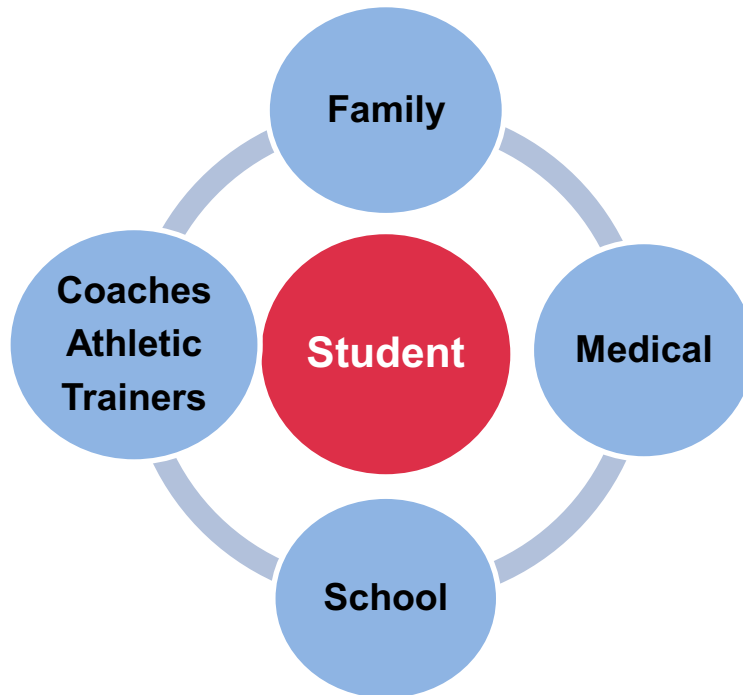


- The Center for Disease Control estimates that 1.7 million traumatic brain injuries occur annually and that 75% of those injuries are mild TBIs (concussions). Concussions occur from sports, falls, playground and bicycle accidents as well as motor vehicle accidents.
- Attention has been given to sports-related concussions because concussion laws have been passed in nearly every state and procedures for Return to Play are familiar to parents, schools and medical personnel.
- Equally important is Return to Learning in the classroom!
- After a concussion, the child or adolescent does not appear to be ill or physically injured. In fact, they may “look” just fine. Nonetheless, a concussion can have direct effects on learning and evidence suggests that using a concussed brain to learn may worsen concussion symptoms and may prolong recovery. (Halstead, McAvoy, et al 2013)
- As the brain is recovering, reducing demands on the brain and avoiding overexertion of the brain at home and at school through a reduction in physical and cognitive activity is beneficial to the recovery of the student
- **Every student and every concussion is different!** No two concussions are the same! The amount of time needed between the injury and the commencement of return to learn activities will vary not only between students, but also between concussions (should a student suffer more than one).
- A Return to Activity plan is composed of two parts:
 - Return to Academics – a gradual return to school and academic requirements implemented by the teaching staff
 - Return to Play – a gradual return to sports implemented by the athletic staff.
- Both the return to academics, and when appropriate, the return to play progression should be allowed to progress over time and as symptoms subside.
- **Please refer to the Return to Academics Progression and Return to Play Progression suggestions at the end of this document. *****

Concussion Management: Recommended Best Practice for Nebraska Schools

- Once a concussion has been diagnosed by a healthcare professional, managing the concussion is best accomplished by creating a support system for the student/athlete. **Communication and collaboration** among parents, school personnel, coaches and athletic trainers, and healthcare providers in overseeing both the return to academics and return to play progressions is essential for the recovery process. Teamwork is required to adjust the treatment and management of the concussion. **Best practice indicates that the student should return to school with a RELEASE OF INFORMATION SIGNED BY THE PARENTS that allows for two-way communication between school personnel and the healthcare provider.** (McAvoy, 2012)

A collaborative approach with the student as the CENTER OF FOCUS!



- Each school district creates a **Concussion Management policy** that incorporates:
 - **Knowledge** about concussion as a mild traumatic brain injury
 - **Training** for all coaches, athletes, parents, and school staff about concussion management
 - **A Concussion Management Team** with a designated contact person.



The Concussion Management Team

Members may include:

Health Care Professional*
Parent(s)*
School Administrator or designee*
Athletic Director
Athletic Trainer
Coach
School Nurse
Teacher(s)

Speech Language pathologist
School Psychologist
School Counselor
Occupational Therapist
Physical Therapist
Student Athlete

Essential members*

Concussion Management Team (CMT) Responsibilities:

- The CMT ensures that every student who suffers a concussion is monitored for a safe return to activity. The CMT designs the Return to Activity Plan with input from the healthcare provider.
- **CMT** contact person is notified of concussion (by parents or athletic trainers, coaches); CMT contact person notifies parent if concussion occurs during school activity;
- CMT contact person notifies school nurse, athletic trainer/coach and teachers as appropriate;
- **Assess** and document the physical, cognitive, behavioral, emotional and sleep **symptoms** and **needs** of a concussed student/athlete;
- Design an **individual plan** for schedule **adjustments**, supports, academic adjustments (i.e., reduced assignments) and physical activity, including PE, dance, active recess, as appropriate and share with school personnel, student and parents;
- **Teachers, Parents, Coaches, Medical providers & Student** communicate, monitor the effectiveness of the plan and document symptoms and academic progress;
- CMT (SAT) meets regularly to **review the student's symptoms and progress**, make adjustments and notifies school staff and health care professional of updates;
- **Adjustments continue until the student no longer needs academic adjustments as a result of the concussion;**
- CMT offers resources on concussions to parents;
- Contact **[Brain Injury Regional School Support Team \(BIRSST\)](#)** for assistance or resources;
- Follow a **gradual Return-to-Activity** for academics and athletics;
- **After symptoms subside and CMT certifies there are no academic concerns or adjustments needed and family and coaches agree student is symptom-free without medication, then**
- Written clearance from a medical provider is given if student/athlete is "back to baseline" on neurocognitive measures and
- Written permission for Return to Activity from parents is obtained;
- Student/athlete returns to academic activities without adjustments and begins Return to Play Protocol; **a successful Return to Learn is necessary before approval for Return to Play. (McAvoy, 2012).**
- Document concussion in student's education file;
- If symptoms last more than 3 – 4 weeks, follow-up assessment and academic adjustments may need to be strengthened or remain in place longer;
- If problems persist, academic accommodations and student supports may be provided through an (Response to Intervention (RtI) Plan, a Health Plan or a 504 Plan;
- The majority of concussed students will not require an IEP; however, a small percentage of students may require a special education referral.
- Parents and medical professions seek medical explanation and treatment for slowed recovery and schools continue to provide appropriate supports.

- **Keep in mind that progression is individual for each student!**

Return to Learn BEFORE Return to Play!

If a student athlete continues to receive academic adjustments due to the presence of any symptoms, they should be considered symptomatic and not be allowed to resume physical activity. McAvoy, Returning to Learn: Going Back to School Following a Concussion. Communique on line, April 2011.

Brain Injury Regional School Support Teams (BIRSST)

- Nebraska has five regional BIRSST teams
 - Refer to attached **map** for **BIRSST team locations and contacts**
- BIRSST teams can assist school districts in:
 - Identifying strategies to support student success
 - Providing information on brain injury and resources
 - Providing training and consultation for Concussion Management Team



Tips for Teachers

Symptoms of concussion often create learning difficulties for students. Immediately after diagnosis of a concussion, an individualized plan for learning adjustments should be initiated with a gradual, monitored return to full academics as symptoms clear. Typical classroom adjustments and accommodations include:

- Reduce course workload
- Decrease homework
- Allow breaks during the day, i.e. rest in quiet area
- Allow additional time to complete assignments
- Provide instructor's notes, outline or study guide for student
- Avoid over-stimulation (noise and light)
- Avoid testing or completion of major projects during recovery time when possible



Refer to **Tips for Teachers** in Appendices for additional adjustments or accommodations.

Tips for Parents

- Parents play a key role in maximizing the child's recovery from a concussion.
- Parents take student to ER or contact the child's healthcare provider immediately after the concussion.
- After the diagnosis of a concussion by the healthcare professional, parents monitor symptoms and activities at home.
- Parents enforce rest, both physical and cognitive, and ensure that the child receives sufficient sleep and engages in quiet, restful activities immediately after a concussion.
- Parents take student to follow-up appointments with the healthcare provider.
- For the first few days, the student/athlete may have symptoms that interfere with concentration and may need to stay home from school to rest for a day or two and refrain from:

- Watching TV
- Playing video games
- Texting
- Working/playing on computer
- Driving
- Use of Cell phone
- Blowing on a musical instrument
- Piano lessons



- Light mental activities can resume as long as symptoms do not worsen. When the student/athlete can tolerate 30-45 minutes of light mental activity, a gradual return to school can commence.
- Parents monitor and track symptoms at home and communicate regularly with the school Concussion Management Team (CMT) Coordinator and/or health care provider.
- Parents sign Permission for two-way Release Information between the medical provider and the school district.
- Parents may request information from the school CMT on concussions.
- Parents are aware of academic adjustments in the school setting.
- Deliver medical clearance from the healthcare provider to the CMT when appropriate.

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WHAT CAN **YOU** DO TO CHANGE THE CULTURE OF CONCUSSION IN NEBRASKA?

- ✓ Educate
- ✓ Communicate
- ✓ Collaborate



- Parents
- Students
- Schools
- Physicians

Wear your helmet!

