Project BRAIN
Partners in Communication
Hospital to Home to School

Tennessee Association of School Nurses, November 4, 2011
Understanding the Dilemma

TBI is Under Identified
Not Reported

Concussion / Mild TBI
Not a Big Deal

Education & Awareness
Prevention & Follow up
Realty

- Society has an unclear understanding of TBI
- Concussion and or Coma are not understood as a TBI
- Lack of communication between hospital, family & school
- Family may hear the term TBI for the first time from the Registry Letter
- Educators are often the last to learn that an injury occurred
- Academic & behavior changes are not immediately linked to the injury
DID YOU KNOW . . .

TBI is the leading cause of disability and death among children & youth in the United States. (CDC)

Schools are the largest provider of services for our kids.
Any injury to the head has the potential to affect a student’s educational performance.

Physical recovery can happen faster, giving a false sense that the brain is healed.

CT Scans are often normal.

Second Impact Syndrome in children and young adults can be devastating.
Simplified Brain Behavior Relationships

Frontal Lobe
- Initiation
- Problem solving
- Judgment
- Inhibition of behavior
- Planning/anticipation
- Self-monitoring
- Motor planning
- Personality/emotions
- Awareness of abilities/limitations
- Organization
- Attention/concentration
- Mental flexibility
- Speaking (expressive language)

Parietal Lobe
- Sense of touch
- Differentiation: size, shape, color
- Spatial perception
- Visual perception

Occipital Lobe
- Vision

Temporal Lobe
- Memory
- Hearing
- Understanding language (receptive language)
- Organization and sequencing

Cerebellum
- Balance
- Coordination
- Skilled motor activity

Brain Stem
- Breathing
- Heart rate
- Arousal/consciousness
- Sleep/wake functions
- Attention/concentration

On the field, in the classroom and at home!
KEY POINTS

- Concussion is an epidemic that is often under-identified and under-managed
- Every concussion must be treated individually
- It takes about a week to recover from a concussion, longer if symptoms persist
- In predicting outcomes:
  - Amnesia is a more important symptom than loss of consciousness
  - Duration of concussion symptoms is more important to a person’s outcome than the initial severity of symptoms

An early return to play puts students at greater risk for developing Post Concussion or Second Impact syndromes. In more severe cases, students may need to be put on bed rest.

adapted from http://cbirt.org/tbi-education/concussion/concussion-and-sports-know-your-game/
Together We Can . . .

Identify students who may experience a variety of changes after sustaining a head injury.

Provide appropriate & timely education, follow-up & intervention throughout the transition from hospital to home to school...into the future.
Project BRAIN is addressing how best to support students with TBI through:

Partnering with TN hospitals to promote effective communication between healthcare professionals, families and educators.

Reaching out to families & students to share helpful tools and resources.

Provide training and ongoing support to schools, families and healthcare providers in the early identification of children with TBI.

Connecting all school faculty and staff to topical resources, information, and classroom supports.

Raising awareness about TBI.
Brain Injury 101:
Supporting Students with TBI in the Classroom
A 2-hour training created for educators, families, healthcare professionals and others interested in TBI.

Partners In Communication:
Supporting Student Transitions, Hospital to Home to School
Designed specifically for healthcare professionals. Learn how a student’s school and home life may change following an injury.

Concussion Within Our Sports Community
This workshop is specially geared for school & community coaches, athletic trainers, athletes, parents and others to learn more about concussion and sports-related head injuries. Basics about brain injury and the developing brain will also be covered.

All Project BRAIN trainings & resources are provided at no charge!
http://www.tndisabiity.org/brain
Tennessee TBI Program

- Statewide Service Coordination Program
  8 TBI Service Coordinators serving all Counties at no charge
- Toll-Free Hotline: 1-800-882-0611
- TBI Registry
- Resource Services Directory

http://health.state.tn.us/tbi/index.htm
Tennessee TBI Registry

Hospital medical records databases retrieve all TBI data sorted by injury codes.

The code classifications are determined by the Centers for Disease Control and Prevention.

Admitted and stay longer than 24 hours
Since 1996 in Tennessee, the TBI registry has recorded over 19,000 persons, ages 3 to 21, who have been hospitalized for treatment of a brain injury.

TN is now assisting those who are treated and released!
TEAMWORK

Hospital
Healthcare Providers communicate the importance of careful attention to identify possible changes the student may experience & to share information with the school.

Home
Family Members communicate to the school that an injury occurred. Facilitating a successful transition is possible only when maintaining open dialogue between the family & school, documenting any observed changes within the student.

School
Educators communicate with the family & student by establishing effective educational supports when appropriate.
Partnering across Tennessee!

Vanderbilt Children’s Hospital
Le Bonheur Children’s Hospital
Children’s Hospital at Erlanger

Brain Injury Transition Liaison

Project BRAIN

Is a Resource and Information Network for educators, families, and healthcare professionals who support Tennessee students with Traumatic Brain Injury

Families simply need more help

“Although TBI is very common, many medical and education professionals may not realize the some difficulties can be caused by a childhood brain injury. As a result, they don’t receive the level of educational help and support they really need.”

The Brain Injury Transition Liaison is a key resource person for the hospital, home, and school.

After a student receives a diagnosis of TBI (mild, moderate, or severe) from a healthcare professional, the family comes...

The Liaison will provide support through:

FOLLOW UP PHONE CALLS
Discussing available resources including:
- Project BRAIN training for the student’s educators and coaches
- REFERRAL to their local TBI Program’s Service Coordinator
- Project BRAIN’s ONLINE RESOURCES PIONEER tool to determine if there may be reason for a return doctor’s visit

For those families with concern and a need for additional information, these follow ups can make all the difference.

A good resource is one that you know of and can access. We’re here to connect you.

Project BRAIN’s Tier 2 & 3 Resource Tool
After a student receives a diagnosis of a TBI, mild, moderate, or severe:

At discharge the family will be presented with the consent form.

If given consent, the Brain Injury Transition Liaison will work with the Department of Education to notify the child’s school principal that he/she has sustained a TBI.

The Liaison provides support through follow up phone calls.
Consent form packet for the family includes:

- Nurses Script
- Consent Form
- Letter to Parent/Legal Guardian
- BITL Brochure
- Child- Signs & Symptoms tool

Packets are available in English & Spanish.
When Your Child's Head Has Been Hurt:

Many children who hurt their heads get well and have no long-term problems. Some children have problems that may not be noticed right away. You may see changes in your child over the next several months that concern you. This card lists some common signs that your child may have a mild brain injury. If your child has any of the problems on this list — AND THEY DON'T GO AWAY — see the "What to Do" box on the back of this sheet.

HEALTH PROBLEMS

Headaches
- Severe headache that does not go away or get better
- Seizures: eyes fluttering, body going stiff, staring into space
- Shred to the ground, amnesia
- Hands shake, tremors, muscles get weak, loss of muscle tone
- Nausea or vomiting that returns

Balance Problems
- Dizziness
- Trouble with balance

Sensory Changes
- Boom by smell
- Changes in taste or smell
- Appetite changes
- Ringing in the ears
- Hearing loss
- Boothered by noises
- Can't handle normal background noise

Sleep Problems
- Can't sleep through the night
- Sleeps too much
- Days and nights get mixed up

Pain Problems
- Neck and shoulder pain that happens a lot
- Other unexplained body pain

Continued on Back

When Your Head Has Been Hurt

Many people who hurt their heads get well and have no long-term changes. Some individuals have changes that might not be noticed right away. You may see differences over the next several months that concern you. This card lists some common signs that you - or someone you know - may have a mild brain injury. If you notice any of the problems on the list - AND THEY DO NOT GO AWAY - see the "What to Do" box on the back of this sheet.

HEALTH CONCERNS

Headaches
- Severe headache that does not go away or get better
- Seizures: eyes fluttering, body going stiff, staring into space
- You seem to forget everything, amnesia
- Hands shake, tremors, muscles get weak, loss of muscle tone
- Nausea or vomiting that returns

Balance Difficulties
- Dizziness
- Trouble with balance

Sensory Changes
- Boothered by smell
- Changes in taste or smell
- Appetite changes
- Ringing in the ears
- Hearing loss
- Boothered by noises
- Can't handle normal background noise

Sleep Changes
- Can't sleep through the night
- Sleeps too much
- Days and nights get mixed up

Pain Concerns
- Frequent neck and shoulder pain
- Other unexplained body pain

Continued on Back
Department of Education contacts child’s school Principal.

Awareness: not all students with a TBI need any special services.

Large percentage fully recover.

Share this information with School Nurse, Educators, Counselor, School Psychologist and Athletic Personnel.

School receives Signs & Symptoms Tool.

<Click “Reply All” To Confirm Receipt of Email>

August 16, 2011

Ms. Chipper, Principal
Hornstown School
1021 Happy Lane
Nashville, TN 37206

Dear Mr. Ball,

The Tennessee Department of Education has been authorized to make you aware that a student at your school, (name of student), has been diagnosed with a traumatic brain injury (TBI) from Monroe Carell Jr. Children’s Hospital at Vanderbilt. This type of injury can be mild, moderate or severe, may not always be visibly apparent but may adversely affect this student’s academic performance.

The important factor in this communication is for everyone to be aware that an injury occurred, that not all students who have a TBI will need specialized services and that a large percentage recover fully. Having this “Signs & Symptoms” tool and knowing where the school can go to for help will increase opportunities for this student’s overall success.

We need your help in this effort. Please make sure that the classroom teacher, school nurse, school counselor/psychologist and, if applicable, any athletic personnel are aware of this correspondence. The school environment is often first to realize differences in a student after an injury has occurred. Sharing this “Signs & Symptoms” tool with school staff will help them recognize these potential differences.

Additional resources to assist your school with this student’s return are available through Project BRAIN, a federally funded TBI Grant Program that is supported by the Tennessee Department of Education, Division of College and Career Readiness. Project BRAIN was created to improve education outcomes for students through their partnership with the Department of Health’s statewide Traumatic Brain Injury Program.

Project BRAIN’s regional TBI Resource Specialists provide training for school personnel on educating students with brain injuries. A training can be scheduled to meet the needs of your particular school. Resources and trainings provided by Project BRAIN are offered free of charge.

Please contact Paula Denlow: pdenlow@tned Throwable or (615) 383-9442 Ext. 8616, and visit Project BRAIN’s website at http://www tnbrain.org/music for more information. Also visit the TN TBI Program online at http://health state tn us/tbi/indem.htm to learn more.

Sincerely,

Linda Cosner, Director of Behavioral & Autism Services
TN DOE, Division of College and Career Readiness
LC/edg

Attachment: All Ages- Signs & Symptoms Tool
If unable to view attachment: Click “Reply All” and type “Unable to view attachment” in body of email.

<Click “Reply All” To Confirm Receipt of Email>
2010 Tennessee Secondary School Athletic Association Concussion Policy
http://www.tssaa.org/

Recommended tool to implement a concussion policy from the Center on Brain Injury Research and Training (CBIRT) for schools as a Sports Concussion Management Guide for School Administrators

541-346-0593 or 877-872-7246
http://www.cbirt.org
Dr. Gerry Gioia is a neuropsychologist at the Children's National Medical Center in Washington, D.C., who specializes in sports concussions.

http://www.msnbc.msn.com/id/15434568/ns/nightly_news/t/avoiding-permanent-damage-concussions/
A new e-learning program has been specifically designed to help coaches better recognize and manage concussion. Youth and high school coaches play a critical role by educating their athletes about concussion and emphasizing the importance of reporting any concussion symptoms.

**ACTive:** Athletic Concussion Training™ using Interactive Video Education, is now available free of charge. Register today and earn your certificate!

[http://activecoach.orcasinc.com](http://activecoach.orcasinc.com)
Communication Holds the Key

Be Pro-active, Not Re-active
Together We...

make a difference
in someone else’s life today.
Resources

Tennessee Traumatic Brain Injury Program
1-800-882-0611
http://health.state.tn.us/TBI/index.htm

Center on Brain Injury Research & Training
http://www.cbirt.org/

Centers for Disease Control and Prevention

Brain Injury Association of Tennessee
1-877-757-2428
http://braininjurytn.org

ESPN- E:60 Second Impact Video
http://www.youtube.com/watch?v=f0xJT53SZqQ

Brainline
http://www.brainline.org/index.html
TBI Education offers evidence-based information and resources for people working with students who have a traumatic brain injury.
2012 Dates to Remember
Statewide Events

TENTATIVE!!!
Feb. 14, 2012 - TBI Education Conference – Nashville @ Opryland

CONFIRMED!!!
Mar. 7, 2012, Brain Injury Conference, Montgomery Bell State Park
"Beyond Surviving - Thriving after Brain Injury"

April 13 & 14, 2012 T 11th Annual Update on Acute & Emergency
Care Pediatrics Conference – Nashville
http://www.tnemsc.org/Home%20Page
Project BRAIN
A Resource and Training Network for Educators, Families and Healthcare Professionals who Support Tennessee Students with Traumatic Brain Injury (TBI)
Program Champions

Project BRAIN is a program of the Tennessee Disability Coalition in collaboration with the Tennessee Traumatic Brain Injury Program and the Tennessee Department of Education.

Project BRAIN is supported in part by project #1 H82MCO3810-01-00 from the U.S. Department of Health & Human Services, Health Resources & Services Administration, Maternal & Child Health Bureau. The contents are the sole responsibility of the authors and do not necessarily represent the views of DHHS. This is in the public domain. Please duplicate and distribute widely.