



Acquired Brain Injury: The Silent Epidemic



November 8, 2019
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Brain Injury – “The Silent Epidemic”

- The term “Silent Epidemic” is used to characterize the incidence of brain injury worldwide, in part because many cases are not recognized and are, therefore, excluded from official statistics
- You typically can’t “see” the disability after brain injury (that is why hundreds of different tests have been developed.
- Because of impaired awareness, most people with brain injury won’t report their injury or its effects
- Brain Injury does not discriminate, it can happen to anyone.

Acquired Brain Injury

An Acquired Brain Injury is an injury to the brain, which is not hereditary, congenital and degenerative.

- All Brain Injuries are considered Acquired Brain Injuries.
- Some examples of Acquired Brain Injury include stroke, intracranial hemorrhage, tumor, encephalopathy (e.g. hypoxia, infectious), neurotoxins or electric shock, TBI.

Traumatic Brain Injury (TBI)

Traumatic Brain Injury or TBI is defined as an alteration in brain function, or other evidence of brain pathology, caused by an external force.

- Any Traumatic Brain Injury is considered an acquired brain injury
- Coup-Contrecoup
- Some examples of TBI are motor vehicle accidents, motorcycle accidents, bicycle accidents, assaults, falls, gunshot wounds, concussions, sports accidents, etc.



ABI—Non-Traumatic Brain Injuries

- Stroke
- Aneurysm
- Tumor
- Hypoxia or Anoxia
- Disease process (non-progressive)
- Neurotoxins
- Electric shock or lightening strike (ECT)



Mild TBI (mTBI)

- mTBI and concussion are often thought of as interchangeable terms
 - Diagnostic Criteria for MTBI by the American Congress of Rehabilitation Medicine
- A traumatically induced physiological disruption of brain function, as manifested by at least one of the following:
- Any loss of consciousness
 - Any loss of memory before or after injury
 - Any alteration of mental state
 - Focal neurological deficit that may or may not be transient
 - Severity of Injury does not exceed the following:
 - LOC \leq 30 minutes
 - After 30 minutes, an initial GCS score of 13-15
 - PTA \leq 24 hours

Every Brain Injury is Unique

- What type of brain injury?
- What part of the brain is injured?
- Who's brain is it in?
- How did their brain work before?
 - Support system before?
 - Prior complications?

Common Effects after Brain Injury

- Cognitive:
 - Short-term memory loss
 - Slowed processing speed
 - Concentration/attention problems
 - Executive Functioning: Awareness, Problem-solving, Decision Making, Judgement, Rigid Thinking, Lack of Initiation, Organization, etc.
- Physical

- Seizures	- Loss of smell and/or taste	- Fatigue,
- Sleep		
- Muscle Spasticity	- Speech Impairments	- Balance
- Vision Issues	- Headaches	
- Emotional/ Behavioral

- Depression	- Impulsivity	-
- Anxiety		
- Irritability	- Egocentric Behaviors	- Etc.
- Mood Swings	- PTSD	



Emotional Reactions to Brain Injury

- Feelings of guilt & shame
- Fear of loss of love & approval
- Attribution for past transgressions
- Threat to identity
- Catastrophic reaction
- Anxiety and depressive disorders
- Spiral of deterioration



Neuropsychiatric Problems After Brain Injury

- “There is substantial psychological and neuro-behavioral evidence available to support the fact that traumatic brain injury (TBI) is a risk factor for subsequent psychiatric disorders. In the Journal of Brain Injury (van Reekum R, 1996), the study revealed high rates for post-TBI patients of major depression, bipolar affective disorder, generalized anxiety disorder, borderline and avoidant personality disorders.”

Brain Injury and Neuropsychiatric Problems-
Brain Injury.com

Neuropsychiatric Problems After Brain Injury

- “TBI is a risk factor for continued psychiatric problems of increased depression and anxiety and suicidal ideation and these problems go on for several decades subsequent to the TBI” (Anstey KJ, 2004).

Brain Injury.com



Behavior and Brain Injury

Behavior and Brain Injury

- When the brain is injured, it affects the ability to control unwanted behaviors.
 - Speaking or acting without thinking, aggression toward others, difficulty responding to requests, displaying poor effort can interfere with rehabilitation and seriously effect the relationships brain injury survivors have with others.
- These problems are not the fault of the brain injured individual and as professionals we should strive to provide clear, reasonable and structured methods of supporting positive behaviors instead.

Some Types of Behavior Problems

- ✓ Agitation
- ✓ Neurobehavioral Excesses
 - ✓ Impulsivity/ Disinhibition
 - ✓ Aggression
- ✓ Neurobehavioral Deficits
 - ✓ Lowered Initiation
- ✓ Effort Problems
 - ✓ Noncompliance
 - ✓ Malingering
- ✓ Emotion/ Decision Making



Cognitive Factors are Often MOST Crucial



- Need basic level of ongoing (“Short term”) memory, attention, processing speed, self-reflection, abstraction, ability to link thoughts together logically, completely, and consistently
- Ability to assess magnitude of problems and resources available to cope with them
- Consistent emotional reactions depend on cognition
- Have to be aware of changes and functional implications of changes

Awareness after Brain Injury

- Unawareness leads to
 - Failure to compensate or anticipate effects of an impairment on task / job performance
 - Difficulties with setting realistic goals
 - Frustration with self and with others
 - Frequent become suspicious or frankly paranoid
- Anosognosia:
 - Neurological disorder especially following frontal or parietal injury – not an emotional disorder

Some Types of Behavior Problems: Agitation/ Irritability

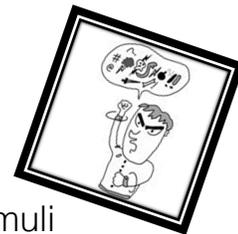
“Irritability and aggression are both estimated to be present in approximately 29-73% of individuals with TBI, contributing to social isolation, care burden, disrupted interpersonal relationships and difficulties in community integration.”



From abstract- Regulation of Irritability, Anger and Aggression After Traumatic Brain Injury: Review of Pharmacologic and Non-Pharmacologic Treatments
Flora M. Hammond, MD, Tessa Hart, PhD, Dawn Neumann, PhD

Neurobehavioral Excesses

- Impulsivity & Disinhibition
 - Distractibility
 - Difficulty focusing/concentrating attention
 - Difficulty inhibiting interference of irrelevant stimuli
 - Accompanied by hyperactivity, inappropriate social behavior, unpredictable changes in affect, hyper-sexuality
 - Associated with Frontal Lobe problem
- Verbal Impulsivity:
 - Spontaneous talking and Inappropriate interruptions
 - Inappropriate statements could be any subject or sexual statements
 - Perhaps more associated with damage to orbital- frontal cortex



Neurobehavioral Deficits

- Initiation:
 - Neurobehavioral deficits are exhibited by an inattention to stimuli. These individuals appear to be indifferent and show a lack of interest and initiative.
 - They will show very little affect and they can't pay attention to events that normally require it.
 - They just appear to be “stuck in the mud”
 - Initiation problems can also be mistaken for issues such as depression, noncompliance, laziness or malingering.

Effort Problems after ABI

- Persons with ABI may consider themselves to be unchanged from their pre-injury status, or less impaired than they actually are.
 - Highly associated with noncompliance and elopement
 - If a person doesn't think he has problems, he won't see the need to work in treatment, listen to nurses, observe precautions etc.
- Testing
 - Can assess whether individual is putting forth adequate effort
 - Reveals lowered effort, not cause of lowered effort

Low Initiation vs. Poor Effort

- Poor initiation due to TBI is usually fairly constant:
 - Can vary somewhat, though
 - Just because a pt perks up and does more when family around does NOT mean he was faking/not trying with us
 - Being around familiar people may activate him enough, increase his attention to produce more behavior

Emotion & Decision Making

- Decisions not based only on reason—emotions needed
- If do something stupid and lose money, feels painful (limbic)
- Limbic projects to the orbital/medial Frontal Lobes (FL), which predicts consequences of future actions
- If FL damaged or disconnected, pts decide against their best interests and fail to learn from previous mistakes
- Since they can't figure out a good strategy, they are vulnerable to first impulse that comes along



TBI Consequence		Functional Impact on Behavior
Attention deficit	→	Difficulty focusing on or responding to required tasks or directions
Memory deficit	→	Difficulty understanding or remembering rules or directions
Irritability or Anger	→	Incidents with Family members, professionals, employers, etc.
Uninhibited or Impulsive Behavior	→	Poor Inhibition of emotions or desires (e.g., theft or drug use, rage)
Executive Function deficit	→	Difficulty organizing behavior to execute stated intentions or goals (e.g., don't actually do what they wanted or said they would do)



Management of Frontal Lobe Impairment and Behavior

Pharmacological

- Physical Medicine and Rehabilitation Physician
- Eliminate Cognitively Toxic Medications if possible
- Medications such as:
 - Neurostimulants
 - Dopamanergic agents
 - Acetylcholinesterase inhibitors
 - Antidepressants
 - Anticonvulsants

Rehabilitation

- Cognitive Rehabilitation
- Assistive Technology
 - Task guidance systems
 - Calendars/reminders
 - Self-monitoring

Consider the individual with ABI

- Does he see the behavior at all?
- Does he see behavior as unusual?
 - “I’ve always been this way”
 - “That’s how anyone would react to the weird stuff they make you do here”
- Can he see any negatives to his disinhibition?
 - How does [behavior] make others feel?
- “What would you like to see differently?”
 - “I want everyone to get off my back.”
This is potential motivator for him to use strategies even if he doesn’t see problem

Populations at Risk of BI



Populations at Risk of BI

- People with addiction issues
- People in domestic violence situations
- People in the criminal justice system
- People experiencing homelessness
- Athletes
- Males
- Veterans

Mental health population—may develop depression, anxiety, PTSD after the brain injury (up to 60% of TBI population has depression)



Undiagnosed Brain Injury

- “You just had a concussion”
- Never went to the doctor—lots of reasons!
- Other injuries distract
- Incorrect diagnosis

Important to ASK!

- Have you ever hit your head or been knocked unconscious or dazed?
- Use OSU Screening Instrument



OSU-TBI-ID

- Originally published in 2007 by John Corrigan, PhD
- A standardized procedure for eliciting lifetime history of TBI via a structured interview
- Strong psychometric properties
- We utilize an adapted version of the OSU TBI-ID Short Version because:
 - Of clinical, research or programmatic purposes
 - It can typically be administered in 5 minutes
 - It can be used free of charge, and
 - It can be used without further permission from the authors as long as no changes are made to the provided version.

*After someone is screened for a possible ABI, your LSN will assist and help you to triage the client accordingly.

Name: _____ Current Age: _____ Interviewer Initials: _____ Date: _____

Ohio State University TBI Identification Method + ABI — Interview Form

Step 1

Ask questions 1-5 below. Record the cause of each reported injury and any details provided spontaneously in the chart at the bottom of this page. You do not need to ask further about loss of consciousness or other injury details during this step.

I am going to ask you about injuries to your head or neck that you may have had anytime in your life.

1. In your lifetime, have you ever been hospitalized or treated in an emergency room following an injury to your head or neck? Think about any childhood injuries you remember or were told about.

NO YES—Record cause in chart
2. In your lifetime, have you ever injured your head or neck in a car accident or from crashing some other moving vehicle like a bicycle, motorcycle or ATV?

NO YES—Record cause in chart
3. In your lifetime, have you ever injured your head or neck in a fall or from being hit by something (for example, falling from a bike or horse, rollerblading, falling on ice, being hit by a rock)? Have you ever injured your head or neck playing sports or on the playground?

NO YES—Record cause in chart
4. In your lifetime, have you ever injured your head or neck in a fight, from being hit by someone, or from being shaken violently? Have you ever been shot in the head?

NO YES—Record cause in chart
5. In your lifetime, have you ever been nearby when an explosion or a blast occurred? If you served in the military, think about any combat- or training-related incidents.

NO YES—Record cause in chart

Interviewer instruction: If the answers to any of the above questions are "yes," go to Step 2. If the answers to all of the above questions are "no," then proceed to Step 3.

Step 2

Interviewer instruction: If the answer is "yes" to any of the questions in Step 1 ask the following additional questions about each reported injury and add details to the chart below.

6. Were you knocked out or did you lose consciousness (LOC)?

If yes, how long?

If no, were you dazed or did you have a gap in your memory from the injury?

How old were you?

Cause	Loss of consciousness (LOC)/knocked out				Dazed/Mem Gap		Age
	No LOC	< 30 Min	30 Min-24 hrs	> 24 hrs	Yes	No	

If more injuries with LOC: How Many? _____ Longest knocked out? _____ How many > 30 min? _____ Youngest age? _____

Cause of repeated injury	Typical Effect		Most Severe Effect		Age
	Dazed/ memory gap, no LOC	LOC	Dazed/ memory gap, no LOC	LOC > 30 min	

Interviewer instruction: If the answers to any of the above questions are "yes," go to Step 2. If the answers to all of the above questions are "no," then proceed to Step 3.

Step 3

Interviewer instruction: Ask the following questions to help identify a history that may include multiple mild TBIs and complete the chart below.

Have you ever had a period of time in which you experienced multiple, repeated impacts to your head (e.g. history of abuse, contact sports, military duty)?

If yes, what was the typical or usual effect—were you knocked out (Loss of Consciousness - LOC)?

If no, were you dazed or did you have a gap in your memory from the injury?

What was the most severe effect from one of the times you had an impact to the head?

How old were you when these repeated injuries began?

Ended?

Cause	Medication Treatment (Y/N)		Hospitalization (Y/N)		Age

Step 4

Interviewer instruction: Ask the following questions to help identify other Acquired Brain Injury (ABI) and complete the chart below.

I am going to ask you about any other illness or medical problem you may have had.

1. Have you ever been told that you have had a stroke or bleeding in your brain? Other words you may have heard include "ruptured aneurysm" or "tortort"

NO YES—Record cause in chart

2. Have you ever been told that you have had a loss of oxygen to the brain? This could result from losing consciousness or passing out after a drug overdose, strangulation, near-drowning, heart attack/heart stopping, breathing stopped or inability to wake up after a medical procedure, excessive blood loss, complications of anesthesia.

NO YES—Record cause in chart

3. Have you ever been electrocuted or struck by lightning?

NO YES—Record cause in chart

4. Have you ever had an infection in your brain? You may have heard the words "meningitis" or "encephalitis"

NO YES—Record cause in chart

5. Have you ever had a tumor in your brain?

NO YES—Record cause in chart

6. Have you ever had brain surgery? This could have been surgery for epilepsy, shunt placement, or tumor removal.

NO YES—Record cause in chart

7. Have you ever been exposed to toxic hazards? This could result from exposure to lead, mercury, arsenic/radiation, environmental hazards, or carbon monoxide.

NO YES—Record cause in chart

Adapted from the Ohio State University TBI Identification Method [Corrigan, J.D., Bogner, J.A. (2007). Initial reliability and validity of the OSU TBI Identification Method. / *Head Trauma Rehabil*, 22(5):318-329. © Reserved 2007, The Ohio Valley Center for Brain Injury Prevention and Rehabilitation.

*Addition of Step 4 is provided by the RHI Resource Facilitation Department.

Education and Resources for Individuals with ABI

Return to Work after Brain Injury

- Average years post-injury people with brain injury get to Indiana Vocational Rehabilitation Services = 10 years
- In 2009, Indiana Vocational Rehabilitation Successful Closure Rate for Individuals with Acquired Brain Injury = 18%

Acute Care - - - - Return to Work





Resource Facilitation

- Specialized service for people with brain injuries who have a return to work or return to school goal
 - Funded by Vocational Rehab
 - Assists with access to services & supports
 - Coordination among those services & supports
 - Provide education on BI and resources
 - Provided by a team of brain injury specialists
 - Specific service is tailored to specific needs



Eligibility for Resource Facilitation

- Acquired non-progressive brain injury
- Goal of return to competitive employment or school that will lead to competitive employment

Individual

- The Resource Facilitator works with the person with brain injury and their family to provide:
 - Brain injury education
 - Facilitation of access to services, systems and supports applicable to each person as derived through the initial evaluation
 - Ongoing assessment of progress

Environmental and Social

- The Local Support Network Leader provides:
 - Community brain injury education and awareness
 - Identification of private and public resources & services applicable to brain injury (e.g., health & mental health care, rehabilitation, state agency, transportation, employment services)
 - Coordination and partnerships to promote seamless continuum from acute and clinical organizations to vocational and Community-based organizations

NeuroVocational Evaluation (NVE)

Scope of testing includes core cognitive functions and psychological status, but also incorporates:

- Neurobehavioral issues
- Substance abuse
- Coping skills
- Level of disability associated with their injury
- Family and social support
- Transportation
- Pain
- Fatigue;
- Sleep
- Mobility
- Self-Efficacy

***The NVE can be a very beneficial tool to various specialists working with the individual and family.



Evidence for Resource Facilitation

- Multiple studies have demonstrated that the base rate of RTW after moderate to severe brain injury is 30-40%
- RF 1 RCT = 64%
- RF 2 RCT = 69%
- RF Clinical Trial = 67%
- Current = 77% Return to Work
= 82% when return to school is included!

RF participants were 7.0 times more likely to participate in productive community-based work than the control group.



Brain Injury Coping Skills (BICS)

- Manualized group intervention that consists of 15-16 sessions, each two hours in length.
- Designed to help both survivors with brain injuries as well as family members or caregivers.
- Large amount of education and training about the brain injury, as well as important therapeutic skills in learning how to deal with the effects of the injury.
- Research shows BICS participants report feeling more confident in their ability to handle their challenges than those who do not get BICS. BICS participants also report improvement in irritability, anger, impulsivity, and emotional challenges



Couples Caring and Relating with Empathy (Couples CARE)

- Manualized intervention that consists of 16 sessions, each two hours in length.
- Designed to help a couple improve and enhance their relationship after a brain injury.
- Couples CARE participants report significant improvements in their satisfaction, adjustment, and communication skills when compared to those who do not go through the program.



Post Concussion Syndrome

Post Concussion Syndrome (PCS) Service

- Neuropsychologist leads an interdisciplinary team in managing persistent symptoms of concussion (
 - Participants must be at least 3 months post injury
 - Services include neuropsychological consult, assessment, and individual and group treatment as indicated. The neuropsychologist works with the treatment team including speech therapy, vision therapy, vestibular and physical therapy to provide evidence-based treatment of PCS.

RHI | Post Concussion Syndrome Cont.

COPE Concussion Group

- 10-session group treatment - two hours each week.
- Integrates psychoeducation, psychotherapy, and cognitive rehabilitation strategies with the overall goal of improving coping and self-efficacy.
- Participants in this group will:
 - Learn about the effects of concussive injury, what to expect in terms of recovery, risk factors for prolonged recovery, and various treatments available for specific symptoms.
 - Learn emotional regulation strategies based on Cognitive-Behavior Therapy (CBT) and Mindfulness-Based Stress Reduction (MBSR).
 - Learn cognitive rehabilitation strategies to improve attention, memory, and executive functioning.



Indiana Brain Injury Support Groups

<https://biaindiana.org/support/>

Brain Injury Support Groups - Indiana

Location	Address	Phone	Time
Bloomington (Harrison County)	1000 E. State St. Bloomington, IN 47403	317.344.4444	1st Monday, 6:30-8:30 pm
Ellettsville (Harrison County)	1000 E. State St. Ellettsville, IN 47420	317.344.4444	1st Monday, 6:30-8:30 pm
Evansville (Vanderburgh County)	1000 E. State St. Evansville, IN 47710	317.344.4444	1st Monday, 6:30-8:30 pm
Fort Wayne (Allen County)	1000 E. State St. Fort Wayne, IN 46802	317.344.4444	1st Monday, 6:30-8:30 pm
Indianapolis (Marion County)	1000 E. State St. Indianapolis, IN 46202	317.344.4444	1st Monday, 6:30-8:30 pm
Lafayette (Tippecanoe County)	1000 E. State St. Lafayette, IN 47901	317.344.4444	1st Monday, 6:30-8:30 pm
Madison (Madison County)	1000 E. State St. Madison, IN 47132	317.344.4444	1st Monday, 6:30-8:30 pm
Muncie (Harrison County)	1000 E. State St. Muncie, IN 47302	317.344.4444	1st Monday, 6:30-8:30 pm
Northern Indiana/Michigan	1000 E. State St. Northern Indiana/Michigan	317.344.4444	1st Monday, 6:30-8:30 pm
Richmond/Milton (Wayne County)	1000 E. State St. Richmond/Milton, IN 46182	317.344.4444	1st Monday, 6:30-8:30 pm
Terre Haute (Vigo County)	1000 E. State St. Terre Haute, IN 47787	317.344.4444	1st Monday, 6:30-8:30 pm
Wabash (Wabash County)	1000 E. State St. Wabash, IN 47986	317.344.4444	1st Monday, 6:30-8:30 pm
Westfield (Harrison County)	1000 E. State St. Westfield, IN 47986	317.344.4444	1st Monday, 6:30-8:30 pm

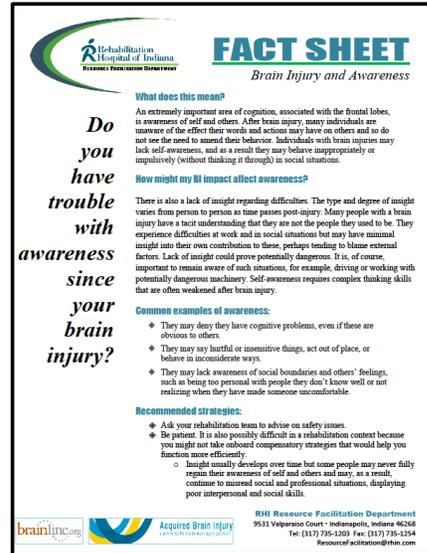
Brain Injury Support Groups - Indiana

Location	Address	Phone	Time
Bluffton (Harrison County)	1000 E. State St. Bluffton, IN 47706	317.344.4444	1st Monday, 6:30-8:30 pm
Chico (Harrison County)	1000 E. State St. Chico, IN 47701	317.344.4444	1st Monday, 6:30-8:30 pm
Clinton (Harrison County)	1000 E. State St. Clinton, IN 47730	317.344.4444	1st Monday, 6:30-8:30 pm
Greensburg (Harrison County)	1000 E. State St. Greensburg, IN 47743	317.344.4444	1st Monday, 6:30-8:30 pm
Hamlet (Harrison County)	1000 E. State St. Hamlet, IN 47746	317.344.4444	1st Monday, 6:30-8:30 pm
Jeffersonville (Harrison County)	1000 E. State St. Jeffersonville, IN 47131	317.344.4444	1st Monday, 6:30-8:30 pm
Leitchfield (Harrison County)	1000 E. State St. Leitchfield, IN 47747	317.344.4444	1st Monday, 6:30-8:30 pm
Madisonville (Harrison County)	1000 E. State St. Madisonville, IN 47148	317.344.4444	1st Monday, 6:30-8:30 pm
Marionville (Harrison County)	1000 E. State St. Marionville, IN 47149	317.344.4444	1st Monday, 6:30-8:30 pm
Northport (Harrison County)	1000 E. State St. Northport, IN 47750	317.344.4444	1st Monday, 6:30-8:30 pm
Shelburne (Harrison County)	1000 E. State St. Shelburne, IN 47788	317.344.4444	1st Monday, 6:30-8:30 pm
Union City (Harrison County)	1000 E. State St. Union City, IN 47781	317.344.4444	1st Monday, 6:30-8:30 pm
Watts (Harrison County)	1000 E. State St. Watts, IN 47789	317.344.4444	1st Monday, 6:30-8:30 pm



New RF RTC Fact Sheets

- 25 Fact Sheets
- What is? (e.g., attention)
- How does brain injury affect ...?
- Common examples of .. difficulties.
- Recommended strategies.
- <http://www.resourcefacilitationrtc.com/fact-sheet-catalog>



MSKTC Fact Sheets

<https://msktc.org/tbi/factsheets>

- The Model Systems Knowledge Translation Center (MSKTC) offers a variety of free resources on traumatic brain injury (TBI) to support people with disabilities and their caregivers, researchers, practitioners and clinicians, and policy makers.
- The MSKTC collaborates with TBI Model Systems to produce evidence-based and consumer-friendly factsheets.



RHI Research Training Outcomes Center (RTOC)

- The RTC's mission is to build statewide and national capacity to achieve evidence-based outcomes for people with brain injury through research, training and education.
- As a result of years of research and program development, the RTC was created in 2016 as a direct result of the RHI Resource Facilitation Department's success with brain injury, rehabilitation and research.
- The RHI Resource Facilitation program has quickly become the gold standard for returning people with brain injury to work.
- Some of our areas of interest include: Specialized brain injury education and training, brain injury and the criminal justice system, Resource Facilitation, ACBIS, Brain Injury Coping Skills (BICS), etc.



Brain Injury Educational Resources

- Brain Injury Association of Indiana: biaindiana.org
 - The Brain Injury Association of Indiana is a nonprofit 501 c (3) service organization dedicated to reducing the incidence and impact of brain injury through education, advocacy, support, prevention and by facilitating inter-agency commitment and collaboration.
- Brain Injury Association of America: <http://www.biausa.org/>
 - The Brain Injury Association of America (BIAA) is the voice of brain injury. We are dedicated to advancing awareness, research, treatment, and education and to improving the quality of life for all individuals impacted by brain injury.
- Traumatic Brain Injury Model Systems: <http://www.msktc.org/tbi/>
 - The MSKTC is a national center that helps facilitate the knowledge translation process to make research meaningful to those with spinal cord injury (SCI), traumatic brain injury (TBI) and burn injury (Burn). The MSKTC works closely with researchers in the 16 Traumatic Brain Injury (TBI) Model Systems to develop resources for people living with traumatic brain injuries and their supporters.
- Resource Facilitation for Individuals with Brain Injury: <http://www.resourcefacilitationrtc.com>
 - Prepare an individual with brain injury so they may return to the workforce. Resource Facilitation assists with access to services and supports to enhance recovery and make informed choices to meet their goals.



Brain Injury Educational

- Brainline: <http://www.brainline.org/>
 - BrainLine is a national multimedia project offering information and resources about preventing, treating, and living with TBI. BrainLine includes a series of webcasts, an electronic newsletter, and an extensive outreach campaign in partnership with national organizations concerned about traumatic brain injury.
- Lash and Associates Publishing/ Training Inc.: <http://www.lapublishing.com/home>.
 - Lash and Associates Publishing/ Training Inc. is the Leading Source of Information and Training on Brain Injury, Blast Injury and PTSD in Children, Adolescents, Adults and Veterans
- United States Brain Injury Alliance: <http://usbia.org/>
 - The mission of the United States Brain Injury Alliance is to engage the community in preventing brain injury and improving lives.
- Center for Disease Control and Prevention- Traumatic Brain Injury: <https://www.cdc.gov/traumaticbraininjury/>
 - CDC's research and programs work to prevent TBIs and help people recognize, respond, and recover if a TBI occurs.



Brain Injury Educational Resources cont.

- National Resource Center for TBI- Virginia Commonwealth University: <http://www.tbinc.com/>
 - The mission of the National Resource Center for Traumatic Brain Injury (NRCTBI) is to provide relevant, practical information for professionals, persons with brain injury, and family members. With input from consumers and nationally recognized experts, the NRCTBI have developed a wide variety of assessment tools, intervention programs, and training programs.
- National Institute of Neurological Disorders and Stroke: <https://www.ninds.nih.gov/>
 - NINDS's mission is to support and perform basic, translational, and clinical neuroscience research through grants-in-aid, contracts, scientific meetings, and through research in its own laboratories, and clinics. NINDS funds and conducts research training and career development programs to increase basic, translational and clinical neuroscience expertise and ensure a vibrant, talented, and diverse work force
- ACRM- American Congress of Rehabilitation Medicine: <https://acrm.org/resources/professional/>
 - ACRM is a vibrant group with diverse individual backgrounds from all over the world — all united with the common interests in rehabilitation and evidence-based research to enhance the lives of those with disabling conditions.

For more information on:

- Acquired Brain Injury
- Screening for brain Injury and next steps
- Resource Facilitation
- Referring a client to Resource Facilitation
- Brain Injury Community Resources

Contact Wendy Waldman

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317.329.2235

Questions?





Thank you!