

**Traumatic Brain Injury
As a Result of Domestic Violence:**
Information, Screening and Model Practices

Participant's Guide



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Acknowledgements

Pennsylvania Coalition Against Domestic Violence (PCADV) would like to thank the Pennsylvania Department of Health for its invitation to participate in this important project, and the PCADV Medical Advocacy Task Force for its contributions to adapting the HELPPS screening tool.

This grant was funded by TBI Implementation Grant #H21MC17232 from the U.S. Department of Health and Human Services Health Resources and Services Administration (HRSA).

Contents are the responsibility of the authors and do not necessarily represent the official views of HRSA.

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All modules are available on PCADV's website in electronic form.

Traumatic Brain Injury As a Result of Domestic Violence: Information, Screening and Model Practices

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- Module II: **Traumatic Brain Injury (TBI)**
- Module III: **Intersections: TBI and Domestic Violence**
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Introduction

Overview

Traumatic Brain Injury (TBI) among domestic violence survivors is a particularly prevalent issue in need of immediate and direct attention. When working with domestic violence survivors, medical and other program advocates often encounter compounding issues such as compromised mental health, Post-Traumatic Stress Disorder (PTSD), and addiction, cognitive or behavioral issues. However, TBI, often called the Silent Epidemic for domestic violence survivors, has been significantly overlooked as a domestic violence survivor injury, with immediate consequences and possibly long-term repercussions. Through key information and encouraging cultural competency, this Participant's Guide facilitates ways to better equip domestic violence program staff to recognize, understand and respond more effectively to the specific needs of those living with TBI as a result of domestic violence.

In 1981, the National Head Injury Foundation informally named TBI “the Silent Epidemic” to “describe the rapid increase in the number of TBI survivors” associated with medical advances made from treating Vietnam War soldiers.¹

The following information will be particularly meaningful to those who have taken PCADV's full training on TBI and domestic violence.

Rationale

Many people who live with domestic violence seek services such as counseling, advocacy, options support and shelter. Survivors may be in crisis due to the actions of an abuser or navigating a life of trauma-related issues. A medical or other program advocate may be the first person a survivor has ever trusted to disclose their experience and needs in search of support.

Currently, Pennsylvania domestic violence programs have limited services specific for supporting domestic violence survivors who live with TBI. This training curriculum and guide is meant to build skill and resource capacities pertaining to TBI, as it intersects with domestic violence, for medical and program advocates. Well-developed screening, advocacy and referral abilities can make a meaningful difference in whether a domestic violence survivor is able to meet self-identified goals. Increasing the ability of providers to identify domestic violence survivors living with TBI helps to increase survivors' chances of enhancing their lives. This guide was created in the spirit of our common goal: Justice, Autonomy, Restoration and Safety on behalf of domestic violence survivors.

The Participant's Guide

The Participant's Guide establishes connections between the training information therein and existing expertise of medical or domestic violence program advocates. The information is built upon (a) common empowerment-based philosophies and practices already in use by coalition and program advocates and (b) evidence-based research, with sources cited at the end of each module. The result is an enhanced educational tool with model practices and women-centered techniques that build an advocate's capacity to work with survivors who do or may live with TBI.

Readers will gain information on:

- Core facts about the brain
- What happens when TBI happens
- Signs, symptoms, etiology and impact of TBI
- Intersections of domestic abuse and TBI
- Babies, children, teens and TBI
- Screening recommendations to guide service providers in creating a work/program environment that is conducive to appropriate support and referrals
- Making appropriate referrals
- Ways to improve services for domestic violence survivors living with TBI
- Instructive and participatory learning opportunities

Primer Modules I - II

Modules I and II are “primers” for understanding Modules III through VII.

Module I provides basic structural and functional information about the brain and skull.

Module II answers certain questions about TBI: What is it? How does it affect the brain? What is its prevalence?

Initially, the purpose of Modules I and II may not seem relevant to domestic violence advocacy roles; however, the modules are included to prepare training participants to have informed discussions with brain injury survivors and/or medical professionals. Familiarity with the first two modules stretches an advocate's knowledge and discussion base by attuning advocates to what people may be talking and asking about when discussing TBI. Developing familiarity with Modules I and II may benefit advocates since such information can surface in direct services, systems advocacy or training discussions. In essence, Modules I and II prime advocates to work with a reasonable sense of TBI awareness and preparedness in their domestic violence work.

Modules III – VII

Modules III through VII review ways that TBI and domestic violence merge. Advocates will find information that will help to strengthen skills for working with domestic violence survivors with TBI.

Module III merges domestic violence and TBI in discussion topics such as types of abuse and behaviors associated with TBI.

Module IV is specific to children, teens and TBI with regard to information, prevalence and advocacy.

Module V equips medical and domestic violence advocates with screening techniques for intake and counseling appointments.

Module VI describes ways to work with and on behalf of domestic violence survivors who live with TBI.

Module VII covers safety assessment and planning measures specific to domestic violence survivors who must learn to navigate their safety while living with TBI.

Moreover, the guide includes supplementary materials to extend one's knowledge base; quotes from brain injury survivors to offer a sense of lived experience; and exercises to train one's brain to better see, hear and respond more effectively to survivors who live with TBI.

The End of Document Appendices include an (A) Acronyms list, (B) Additional Resources, and (C) a Pre-Test, a Post-Test, and a True/False Answer Key.

Expertise

This guide does not prepare or authorize a program or medical advocate, or unauthorized medical service provider to presume, label, diagnose or otherwise suggest that someone has TBI or clinically treat TBI, presumed or diagnosed. Only authorized medical personnel may diagnose or treat the condition of TBI.

In one TBI study, participants questioned use of the word 'recovery' as it

[I]mplies a desire or expectation to return to previous abilities and status, which the survivors who participated in the project have come to realize is impossible. They prefer the word 'healing' because it implies continued progress over time and encompasses ... physical, cognitive, emotional or psychological, and spiritual healing.²

PCADV asserts that domestic violence and TBI survivors are understood as experts in their own lives and experiences; medical and program advocates are considered experts in working with survivors of domestic violence; and medical professionals are considered experts in diagnosing and providing treatment for TBI.

Language Use

Inclusive language is used where possible. Domestic violence is a gendered circumstance, and for the most part, domestic violence survivors are female; therefore, the word “she” is largely used throughout the text.

While the general dynamic discussed in this curriculum is male-female intimate partner, PCADV works from the standpoint that domestic violence affects all categories of relationships including male-female; same sex/gender; Lesbian, Gay, Bisexual, Trans, Queer, Questioning, Pansexual; teen dating and family relationships.

The word “healing” rather than “recovery”³ and the words “survivor” or “program participant” rather than “victim” are preferred.

Different words are often used interchangeably to describe the same thing. The following words are often used to describe domestic violence:

- Abuse
- Domestic abuse
- Intimate partner violence (IPV)

Throughout this module the term “domestic violence” is used.

Reference List: Introduction

1. Ashley, Mark J. and Krych, David K. (1995). Traumatic brain injury: Rehabilitation treatment and case management (2nd Ed) (541). Danvers, MA: CRC Press.
2. Lorenz, Laura S. (2010). Visual metaphors of living with a brain injury: Exploring and communicating lived experience with an invisible injury. *Visual Studies*, vol. 25 (3), 214.
3. Lorenz, Laura S. (2010). Visual metaphors of living with a brain injury: Exploring and communicating lived experience with an invisible injury. *Visual Studies*, vol. 25 (3), 214.

**Traumatic Brain Injury
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Module I – The Brain & Skull



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Module I – The Brain & Skull

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MODULE I – THE BRAIN & SKULL

Module I is a “primer” for *Modules III – VII*. *Module I* provides a general overview of the brain, brain function and lobes, and cranial and facial structures. The module content helps to prepare advocates for informed discussions with brain injury survivors or medical professionals as they conduct Traumatic Brain Injury (TBI) and domestic violence advocacy work. While advocates are not expected to memorize anatomical details presented within the module, a foundation is laid for understanding the potential for TBI as described in *Module II*.

**Brain Injury
Helpline for
information,
referrals and
resources:
866-412-4755**

General Information

An adult brain:

- Weighs about three pounds
- Is about the size of a medium head of cauliflower

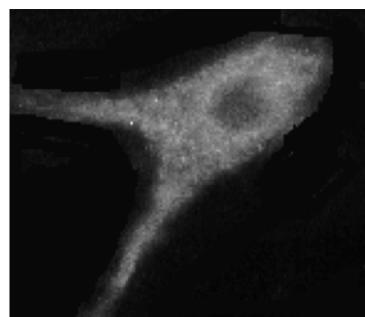
The brain consists of several essential components, including brain lobes, tissue, neurons and capillaries that govern a person’s overall health and ability to function.

Neurons and Capillaries

The adult brain holds about:

- 100 billion neurons, which are nerve cells with special jobs for memory, learning, thinking, muscle action and the sensory actions¹
- 100 trillion synapses to transmit messages across neurons¹
- 400 billion capillaries, which are tiny blood vessels that carry essential components such as oxygen, glucose, hormones and nutrients to brain cells, as well as carry away waste¹
- Neurons, or nerve cells, are formed in the fetal stages and continue to form for a short time after birth³
- Brain cells that remain free of trauma can endure a natural lifespan³
- Living neurons can repair themselves, but cell death is usually permanent with the exception of a few brain regions where cells can regenerate³

Figure 1-1: Photo of a Neuron²



Brain Lobes

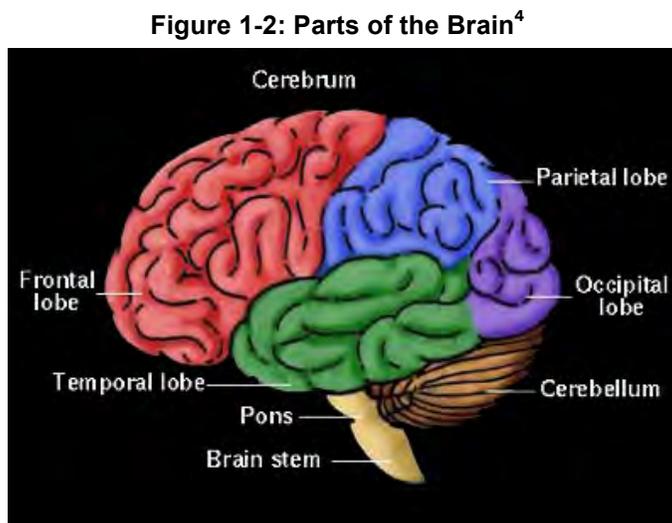
The word “cerebrum” is the Latin word for brain.

There are four lobes of the brain:

- Frontal Lobe
- Parietal Lobe
- Occipital Lobe
- Temporal Lobe

The brain also has a:

- Cerebellum
- Brain stem
- Right and left hemisphere



Between the four lobes:

- Trillions of microscopic nerve fibers interconnect between the lobes⁵
- Rapid communication of these nerve fibers results in “normal” functioning⁵

Each lobe of the brain is highly specialized and is “responsible” for differing body functions.

Damage to a specific area of the brain may result in predictable losses for an individual. For example, the occipital lobe is the center for vision. Damage to this lobe will result in some type of visual disturbance.⁵

Cranial and Facial Bones

A broken facial or cranial bone may indicate TBI.

Eight cranial bones, which correlate with the brain lobes, hold the brain.⁶

- Sphenoid
- Temporal (2)
- Ethmoid
- Parietal (2)
- Occipital
- Frontal

Fourteen facial bones can be seen in relation to the cranial bones, and other components, on the depictions in Figures 1-3 and 1-4.⁷

Advocates may see the depictions as:

- Complex
- Overwhelming
- Too Much Information

Advocates are not expected to memorize the cranial and facial bones.

The illustrations are for advocates to simply observe the complexity of the facial and cranial structures. These bones are both resilient and fragile;⁸ any one of them could suffer damage associated with TBI.

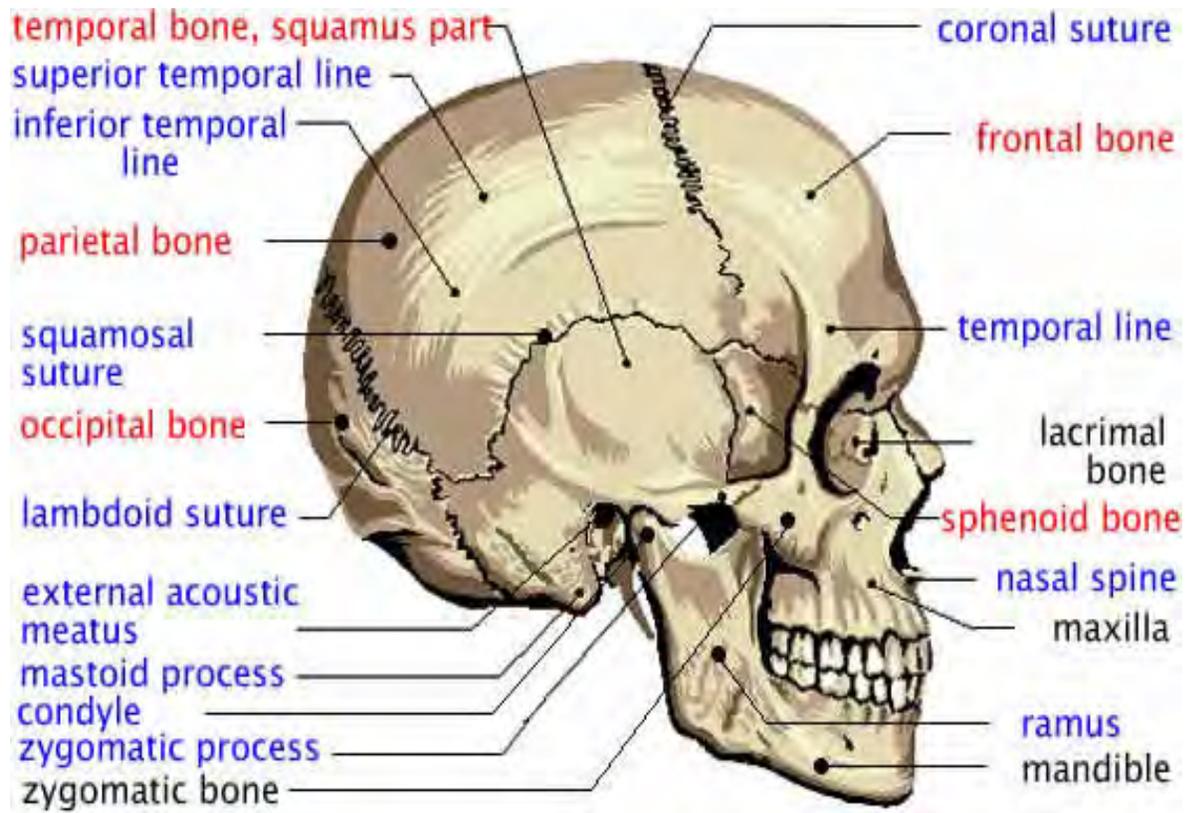
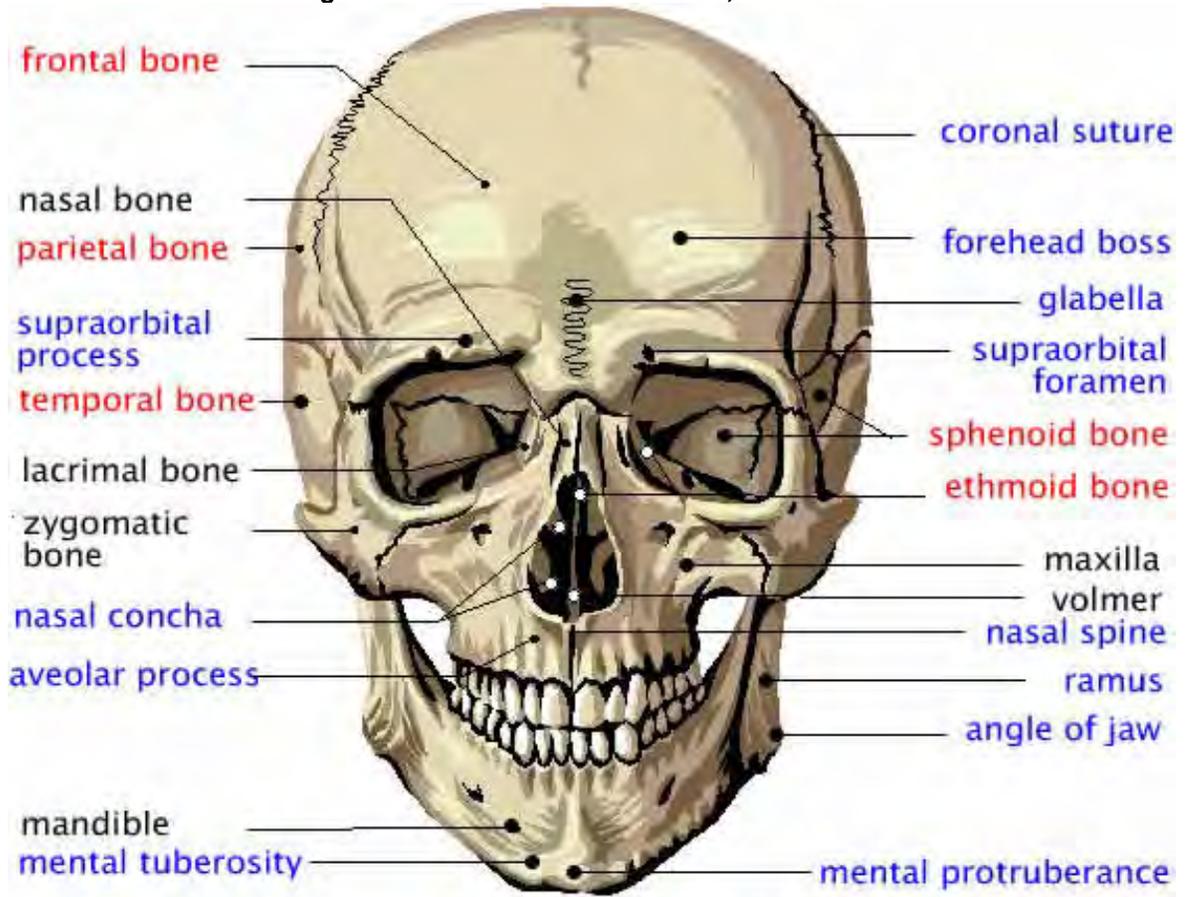
Figure 1-3: Cranial & Facial Bones, side view⁷

Figure 1-4: Cranial & Facial Bones, front view⁷



Summary

Module I provides a general overview of the brain, brain function and lobes, and cranial and facial structures. A foundation is laid for understanding the potential for Traumatic Brain Injury as described in *Module II*.

Reference List: Module I

1. U.S National Institutes of Health. (n.d.). The basics of the healthy brain. National Institute on Aging. Retrieved from <http://www.nia.nih.gov/Alzheimers/Publications/Unraveling/Part1/neurons.html>.
2. Chudler, Eric H. (n.d.). Brain facts and figures. University of Washington. Retrieved from: <http://faculty.washington.edu/chudler/facts.html#neuron>.
3. U.S National Institutes of Health. (n.d.). The basics of the healthy brain. National Institute on Aging. Retrieved from <http://www.nia.nih.gov/Alzheimers/Publications/Unraveling/Part1/neurons.html>.
4. Brain Imaging. (n.d.). Retrieved from <http://www.sciencebob.com/research/brain.php>
5. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
6. Enotes.com. (n.d.). Skull. Encyclopedia of nursing and allied health. Retrieved from <http://www.enotes.com/nursing-encyclopedia/skull>.
7. DataFace: Psychology, appearance, and behavior of the human face. (n.d.). Anatomy of the human skull. Retrieved from <http://www.face-and-emotion.com/dataface/physiognomy/cranium.jsp>.
8. Yoganandan, N., & Pintar, F. A., et al. (1993.) Human facial tolerance to steering wheel impact: A biomechanical study. *Journal of safety research*, vol 24, 77, 78.

Traumatic Brain Injury
As a Result of Domestic Violence:
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Module II – Traumatic Brain Injury



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MODULE II – TRAUMATIC BRAIN INJURY

Module II is a “primer” for *Modules III - VII*. *Module II* informs domestic violence advocates of the types, signs, causes and impact of TBI in order to learn key connections between TBI and domestic violence.

“I am a normal person with part of my head off in Never Never Land...will I ever retrieve it?”

TBI Survivor¹

**Brain Injury
Helpline for
information,
referrals and
resources:
866-412-4755**

Each year in PA:

245,621 people are living with brain injury

2,223 die from brain injuries

10,463 are hospitalized after a brain injury

49,505 are seen in the Emergency Room following a brain injury

25,975 Pennsylvania children have brain injuries

8,612 people sustain long term or life-long disabilities from brain injury

Statistics from the Brain Injury Association of Pennsylvania, www.biapa.org.

Brain Injury Types

For the purpose of discussing TBI as it relates to domestic violence, these materials refer to two main categories of brain trauma:

- Traumatic Brain Injury
- Anoxic Brain Injury

A brain injury can result in:

- Short or long-term problems with independent function²

What is Traumatic Brain Injury (TBI)?

TBI is a type of Acquired Brain Injury.

- Acquired Brain Injuries are the result of an incident after birth, such as a stroke, tumor, or head injury³

“An alteration in brain function, or other evidence of brain pathology, caused by external force.”

Brain Injury Association of America, February 2011

TBI is an injury that cannot be seen with the eye like most broken bones, a burn or a laceration. It is often referred to as:

- The Silent Epidemic

TBI is also explained as “damage to brain tissue which has been caused by an external mechanical force, as evidenced by:”⁴

- Loss of consciousness⁴
- Post-traumatic amnesia⁴
- Skull fracture⁴
- Objective neurological findings that can be reasonably attributed to TBI on physical examination or mental status examination⁴

TBI is not:

- A new onset mental health issue⁵
- Emotional stress⁵
- An intellectual or developmental disability
- The effects of prolonged drug/alcohol abuse⁵

Many people believe there must be a loss of consciousness (LOC) to have a brain injury, yet:

- Only 15% of all brain injuries are associated with LOC⁵

17 million new TBIs occur each year

75% of TBIs are from concussion

You don't have to lose consciousness to have TBI⁵

The general population, including some health care and domestic violence service providers, do not know about TBI or minimize its potential consequences, even though:

- 15% of individuals who experience a concussion experience life long changes⁵
- TBI can cause epilepsy and increase the risk of Alzheimer's disease, Parkinson's disease, and other brain disorders that become prevalent with age⁶

It is reasonable to conclude that:

- TBI is a largely unrecognized major health problem⁷

TBI can result from:

- A blow to the head of sufficient force to create blunt trauma, such as being hit in the head with a baseball bat or having one's head slammed against a hard object⁷
- A secondary trauma from a penetrating object into the brain, for example, a bullet entering the brain⁷
- Rapid movement of the brain within the skull, possibly from violent shaking of the body and/or head⁷
- Falling on the head, sudden jerking of the head, or sports-related blows to the head^{8,9}

There are four types of TBI:

1. Contusions: Direct impact causes bruising¹⁰
2. Compression: The brain is forced against the skull as a result of direct impact¹⁰
3. Rotational injuries: The brain rotates within the skull, tearing veins¹⁰
4. Pressure build-up due to hemorrhaging:¹¹ Hemorrhaging happens when an artery in the brain bursts and causes localized bleeding in surrounding tissues

What is Anoxic Brain Injury?

Anoxic Brain Injury may also be referred to as:

- Cerebral hypoxia¹²

However, hypoxia and anoxia are different conditions:

- Hypoxia occurs when the amount of oxygen meant to reach the body's tissues is reduced¹²
- Anoxia occurs when no oxygen can reach the body's tissues¹²
- Hypoxia and Anoxia are both life-threatening conditions and are often referenced together as hypoxic-anoxic-injury (HAI)¹²

Anoxic Brain Injury:

- Occurs when the brain's oxygen supply drops to a low level for four minutes or longer¹³
- After five minutes of depleted oxygen, anoxic brain injury will likely occur¹⁴

Among domestic violence survivors, Anoxic Brain Injury can result from:

- Suffocation¹⁵
- Drug use¹⁵
- Electrical shock¹⁵
- Carbon monoxide inhalation¹⁵
- Tracheal compression¹⁵
- Forced ingestion of food or drug allergens
- Strangulation
- Attempted drowning

Strangulation is one of the most lethal forms of domestic violence and the number one indicator of future fatality due to domestic violence.¹⁶

Anoxic Brain Injury can result in permanent disabilities which range from minor "neurological or psychological deficits" to moderate-to-severe disabilities to "death or persistent coma."¹⁷

Oxygen deprivation that lasts for longer periods of time can cause coma, seizures or brain death.¹⁸

- Death may occur hours to days after the event¹⁹
- "The longer someone is unconscious, the higher the chances of death or brain death, and the lower the chances of a meaningful healing"²⁰

Strangulation can occur with the use of hands, forearms, or feet pressing on the neck, and chokeholds or objects such as ligature.²¹

TBI and Gender

It is reported that:

- Men are documented to suffer TBI at twice the rate of women²²
 - Data shows that TBI occurs more frequently in males between the ages of 15-24²²
- Yet, 40% of women visit emergency rooms for injuries [including TBI] related to domestic violence, and only 2.8% - 10% of patients disclose or are otherwise identified as domestic violence survivors²³

Data on domestic violence survivors who have experienced or continue to live with TBI is unknown.

- Many domestic violence survivors tend not to get medical care or disclose the cause of injury

Looking closer at data, information gaps are evident:

- Numbers reflect only individuals who are hospitalized for their brain injuries²⁴
- Information from hospital records does not account for domestic violence survivors, including children, aside from teens, who were never seen by a medical professional²⁴
- Information does not capture those who do not disclose abuse, remain unidentified, unreported, or misdiagnosed

Only 1% of abused women are appropriately identified by the health care system²⁵

General Causes of TBI:²⁶

- Motor Vehicle Traffic 20%
- Falls 28%
- Assault 11%
- Struck By/Against 19%
- Unknown 9%
- Other 7%
- Suicide 1%
- Pedal Cycle 3%
- Other Transport 2%

Percentage of Average Annual Traumatic Brain Injury-Related Emergency Department Visits, Hospitalizations, and Deaths, by External Cause, United States, 1995–2001

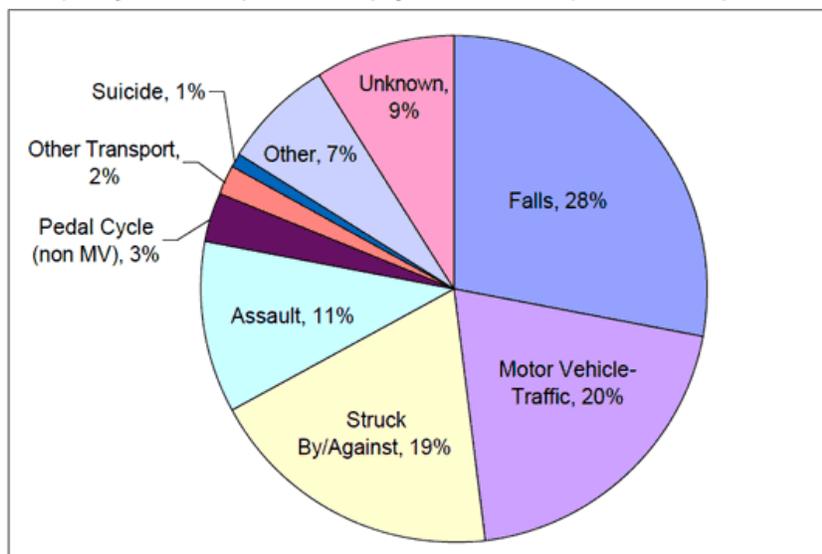


Figure 2-1²⁷

Most domestic violence survivors can be represented in all of these categories with the possible exceptions of Pedal Cycle and Other Transport.

Remember:

- The assault of domestic violence survivors by their abuser may also include assault with a firearm that results in TBI
- “Other” causes may include undisclosed physical abuse, including Shaken Baby Syndrome or Shaken Adult Syndrome^{28, 29}

Having a gun in the home makes it three times more likely that you or someone you care about will be murdered by a family member or intimate partner.³⁰

Workings of the Brain

In lay terms:

- The brain works like a series of electrical wires that result in smooth thinking and movement³¹



Figure 2-2

After an injury to the head:

- The wiring may misfire and cause problems for everyday functioning³¹

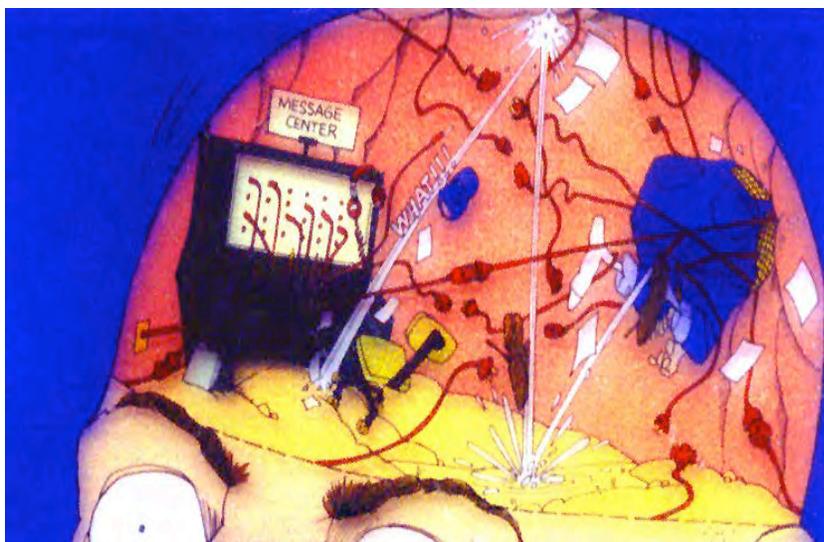


Figure 2-3

Survivors are often assaulted multiple times:

- Even one injury can change the way someone thinks, feels and acts within seconds³¹

Mechanism of Damage

The brain's natural consistency is "jello-like."³¹

With TBI:

- There is bruising of the brain due to a forward/backward movement force against the skull³¹
- Nerve fibers twist due to the twisting of the brain within the skull³¹
- Nerve fibers are broken or stretched creating temporary or permanent brain damage³¹

With significant impact, the brain:

1. Begins to rapidly vibrate within the skull³¹
2. Rapidly rebounds forward and backwards³¹
3. Bruises as it impacts the inside of the skull³¹
 - These motions continue for a period of time after the actual blow to the head³¹
 - At the time of rapid brain movement, delicate nerve fibers are twisted, broken or stretched³¹
 - If the fibers are stretched, they will not work as well; if the fibers are broken, they will never work again³¹
 - Once nerve fibers are altered, they no longer work or work well, resulting in mild to severe brain damage³¹

TBI changes a person's:³²

- Biochemistry: Chemical compounds and processes of living organisms³²
- Neurotransmitters: Substances that transmit nerve impulses across a synapse³²
- Brain Structure: Arrangement of particles or parts in the brain³²

Brain Injuries: Mild, Moderate or Severe

Brain injury severity is usually classified as mild or moderate-to-severe.

1. A "mild" TBI means there has been a brief change in mental status or consciousness³³
2. A "severe" TBI means there has been an extended period of unconsciousness or amnesia after recovery³⁴

Mild TBI

- What do you hear when people talk about concussions?
- What healing time is generally thought of as normal or acceptable for healing from a concussion?

People with mild TBI are often undiagnosed, misdiagnosed, or untreated, particularly when there has been no loss of consciousness (LOC).³⁵

- 85% of TBIs are mild³⁵
- Individuals diagnosed with mild TBI are typically not hospitalized, but may be assessed in an emergency room or physician's office
- Individuals with a brief or no loss of consciousness are often sent home from the hospital and told they will be fine – If this information is offered in error, the result may be long term and devastating as the person remains unaware of altered abilities³⁶
- The majority of these individuals recover fully within 3-6 months, however, 15% of these individuals will be left with chronic physical, cognitive and emotional problems that significantly interfere with daily functioning³⁷

Concussion

A loss of consciousness (LOC) is clearly associated with concussion,³⁸ but only occurs in less than 10% of all concussive injuries.³⁹ Headache is the most prevalent symptom of concussion.⁴⁰

A concussion is a brain injury:

- Even if there is no LOC⁴¹
- That does not require a blow to the head to occur; a significant shake or jolt can be enough to cause a concussion⁴¹

What happens during a concussion?

- The brain moves abruptly inside the skull making contact with the bony protuberances on the underside of the skull
 - This contact can result from linear or rotational forces applied to the skull or elsewhere on the body (i.e., whiplash) that accelerate/decelerate the head.

- Concussion has been classified as a “metabolic” injury or “energy crisis that is invoked by two events that adversely influence each other:
- Stretching and tearing of blood vessels results in decreased cerebral blood flow which starve the injured brain for energy (i.e., glucose)
 1. Stretched membranes of the neuron leak out potassium (K+) and leak in calcium (Ca). This results in a chemical imbalance to which the brain attempts to fix by using an increased amount of stored energy. However, due to the lack of energy supply (i.e., poor blood flow) the brain is in an energy crisis and falls into a depressed state of function that can last for days and even weeks following injury⁴²

In essence, damage from a concussion and the unfolding of events put the brain in a state of crisis and imbalance that will not let it heal efficiently, resulting in a range of possible symptoms.

Chances of secondary injury can be minimized if there is initial proper diagnosis and treatment.⁴³

During the “energy crisis” the brain is extremely vulnerable to another concussion, which can have catastrophic consequences (i.e., second impact syndrome).

A **concussion** is “a temporary and brief interruption of neurologic function caused by blunt trauma to the head or by rapid acceleration, deceleration or rotation of the head.”⁴⁴

- A concussion is a mild form of TBI⁴⁵
- Repeat mild TBI’s occurring over an extended period of time, such as months or years, can result in cumulative neurological and cognitive deficits⁴⁵
- Repeat mild TBI’s occurring within a short period of time, such as days or weeks, can be catastrophic or fatal⁴⁵

Concussion symptoms fall into four categories:⁴⁶

- Physical⁴⁶
- Cognitive⁴⁶
- Emotional⁴⁶
- Sleep-related⁴⁶

Problems can result for an individual with TBI:

- Emotional problems⁴⁷
- Attention problems⁴⁷
- Information processing⁴⁷
- Verbal memory⁴⁷
- Loss of sense of smell⁴⁸

TBI symptoms can be numerous, varied and individualized.

Mild TBI can cause short and long-term changes in:

- Thinking (memory and reasoning)⁵⁰
- Sensation (touch, taste, smell)⁵⁰
- Language (communication, expression, understanding)⁵⁰
- Emotion (depression, anxiety, personality changes, aggression, acting out, social inappropriateness)⁵⁰

Mild TBI is also associated with Post-Traumatic Stress Disorder and can cause someone to experience:

- Irritability⁵¹
- Anger⁵¹
- Difficulty concentrating⁵¹
- Amnesia⁵¹

25%-33% of adults who sustain a TBI develop agitation and aggression, usually within a year of the injury.⁵¹

Risk factors that may increase chances of developing agitation and aggression are:⁵¹

- Frontal lobe lesions⁵¹
- Pre-injury history of substance abuse⁵¹
- Pre-injury aggression⁵¹
- Multiple brain injuries⁵¹

Re-injury of a concussion may cause:⁵²

- Brain swelling⁵²
- Permanent brain damage⁵²
- Death⁵²
- All of the above

Serious long-term health problems from repeat concussions include chronic difficulty with:

- Concentration⁵²
- Memory⁵²
- Headache⁵²
- Physical skills, such as balance⁵²

Effects of a concussion tend to subside after 7-14 days, yet post-concussion symptoms can last six months or a year after the incident.⁵³

Post-concussion symptoms may surface:

- In 40%-80% of patients with mild TBI⁵⁴
- Three months after a mild TBI: 24%-60% of patients report symptoms⁵⁵
- Six months after mild TBI: 25-35% of patients report symptoms⁵⁶
- For more than a year post-injury: 10%-15% of patients report symptoms⁵⁶

In a recent study, some TBI patients were found to need medical attention ten years post-concussion.⁵⁶

Chart 2-1: Symptoms

| Mild TBI Symptoms | Moderate TBI Symptoms⁶² | Severe TBI Symptoms⁶⁴ |
|---|---|---|
| <p>Dizziness, Disorientation, Amnesia, Headaches, Loss of Consciousness, Confusion, Nausea, Vomiting, Unusual/ Prolonged Sleepiness, Restless Sleep Patterns or Insomnia, Emotional Instability, Fatigue, Depression, Anxiety, Vertigo, Visual Disturbance, Noise Sensitivity, Altered Gait, Attention Deficits, Poor Memory, Poor Concentration, Slow Thought Process, Neurologic Deficits,⁴⁹ Generally Slowed Processing, Fatigue, Sensitivity to Lights</p> | <p>Altered Level of Consciousness, Confusion, Drowsiness, Seizures, Vomiting, Headache, Double Vision, Amnesia, Focal Neurologic Deficits (Impairments due to damage to a specific area of the brain that affect a specific region of the body)</p> | <p>Post-traumatic Amnesia Beyond 1 Week, Open Head Injuries, Intracranial Contusion, Laceration, Hematoma, Hemorrhage, Diffuse Axonal Injuries (A type of widespread injury to the brain, frequent outcome is coma)</p> |

Chart 2-2: Post-Concussion Symptoms

| Post-concussion Symptoms Include ⁶⁰ |
|--|
| Headache |
| Dizziness |
| Concentration Problems |
| Memory Problems |
| Fatigue |
| Noise Intolerance |
| Insomnia |
| Reduced Alcohol Intolerance |
| Concentration, Memory or Other Intellectual Difficulties |
| Fear of Brain Damage |

Moderate-to-Severe TBI

People with moderate-to-severe TBIs are usually hospitalized, known to the medical system, and are followed by the medical system.

- 15% of TBIs are moderate to severe⁵⁷

Other moderate or severe TBI symptoms include:

- Documented loss of consciousness – the longer the loss of consciousness, the more severe the injury.⁵⁷
- Potential skull fractures⁵⁷
- Significant period (days to weeks) of coma⁵⁷
- Significant loss of information for a period of time post event⁵⁷
- Significant and chronic thinking, physical and emotional changes⁵⁷
- Late onset seizures appearing one to two years or more after an injury⁵⁸
- Decreased or lost senses due to damage to cranial nerves that control sensory functions
 - Those functions may include the ability to accurately smell, see, hear, touch, make facial expressions, and control tongue, chewing, and muscles in the throat and neck.^{59, 60}

It is important to note that like the brain, cranial nerves have the capacity to heal from a traumatic injury.⁶¹

Confusion is not the same as memory loss⁶³

Moderate-to-Severe Morbidity and Mortality:⁶⁴

- 7% chance of moderate disability⁶⁴
- 40% chance of mortality⁶⁴

Loss of Consciousness (LOC)

- LOC is not a necessary indicator of TBI⁶⁴
- LOC does not automatically mean a person has moderate or severe TBI, but may or may not be associated with early deficits⁶⁴
- LOC always indicates TBI⁶⁴

TBI and Medical Testing

Two main types of neurological scans are used to detect brain injury:

- Those that examine brain structure (CT scan and MRI)
- Those that examine brain function (EEG, SPECT scan, PET scan, and evoked studies that measure electrical signals along nerve pathways)

Concussion is a metabolic rather than structural injury:

- Traditional CT scans, MRIs and other neurodiagnostic imaging techniques are almost always normal after a concussion⁶⁵
- However, neurodiagnostic imaging is important to detecting other types of serious head trauma such as brain swelling, bleeding, or skull fracture⁶⁵

There may be no abnormality showing on standard imaging.⁶⁶

Recent developments in diagnosing TBI include:

- Discovery of a biological marker, referred to as plasma micro particle procoagulant activity, in patients with TBI⁶⁷
- A blood test that may detect unique proteins that spill into the blood from damaged brain cells⁶⁸
- The development of two new types of brain MRI's that have predicative capability with regard to children and adults
 - Diffusion Weighted Imaging (DWI)
 - Apparent Diffusion Coefficient (ADC)^{69, 70}
- Another new type of MRI, Diffusion Tensor Imaging (DTI), that promises to be more sensitive in detecting brain injury⁷¹

Summary

Module II training participants define TBI and its causes, and identify TBI signs, symptoms and presentation. *Module III* prepares participants to list and articulate intersections between TBI and domestic violence.

Reference List: Module II

1. Lorenz, Laura S. (2010). Visual metaphors of living with a brain injury: Exploring and communicating lived experience with an invisible injury. *Visual Studies*, vol. 25 (3), 212.
2. Brain Injury Association of America. n.d. Facts about traumatic brain injury. About brain injury. Retrieved from <http://www.biausa.org/aboutbi.htm>.
3. Lorenz, Laura S. (2010). Visual metaphors of living with a brain injury: Exploring and communicating lived experience with an invisible injury. *Visual Studies*, vol. 25 (3), 210.
4. Harrison-Felix, Newton, Hall and Dreutzer. (1996). Cited in Bryon, Deborah (2010). Domestic aggression and traumatic brain injury. Retrieved from <http://www.4therapy.com/life-topics/family-relationships/domestic-violence/domestic-aggression-and-traumatic-brain-injury-25>
5. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
6. Centers for Disease Control and Prevention. (n.d.). What are the potential long-term outcomes of TBI? Retrieved from www.cdc.gov/TraumaticBrainInjury/outcomes.html
7. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
8. Collins, Mickey, Ph.D. (October 15, 2010). Data based management of sports concussion: What are we learning? University of Pittsburgh Medical Center, UMPC Sports Concussion Program. Pennsylvania Medical Home Initiative. EPIC-IC Fall Conference lecture on traumatic brain injury. Harrisburg, PA.
9. Brain Injury Resource Center. (n.d.). Brain injury in sports. Retrieved from <http://www.headinjury.com/sports.htm#guidelines>
10. Bryon, Deborah. (2010). Domestic aggression and traumatic brain injury. Retrieved from <http://www.4therapy.com/life-topics/family-relationships/domestic-violence/domestic-aggression-and-traumatic-brain-injury-25>

11. Stratton and Gregory. (1994). In Bryon, Deborah (2010). Domestic aggression and traumatic brain injury. Retrieved from <http://www.4therapy.com/life-topics/family-relationships/domestic-violence/domestic-aggression-and-traumatic-brain-injury-25>
12. Miller, Lea. (2010). Understanding the difference between anoxia and hypoxia. Health and fitness: Disease. Helium. Retrieved from: www.helium.com/items.1864493-understanding-the-difference-between-anoxia-and-hypoxia
13. Brain and Spinal Cord.org. (2011). Anoxic brain injury. Resources and Information for Brain and Spinal Cord Injury Survivors. Retrieved from: <http://www.brainandspinalcord.org/traumatic-brain-injury-types/anoxic-brain-injury/index.html>
14. BrainandSpinalCord.org. (n.d.). Resources and information for brain and spinal cord injury survivors. Anoxic brain injury. Retrieved from <http://www.brainandspinalcord.org/traumatic-brain-injury-types/anoxic-brain-injury/index.html>
15. BrainandSpinalCord.org. (n.d.). Resources and information for brain and spinal cord injury survivors. Anoxic brain injury. Retrieved from <http://www.brainandspinalcord.org/traumatic-brain-injury-types/anoxic-brain-injury/index.html>
16. Rozzi, Heather. V., MD, Medical Director, Forensic Examiner Team, York Hospital. (September 22, 2010). Lecture at the Forensics for First Responders conference. York, PA.
17. Garrow, Andrew, MD and Weinhouse, G. L., MD. (1999). Anoxic brain injury: Assessment and prognosis. Retrieved from <http://cmbi.bjmu.edu.cn/uptodate/critical%20care/Neurologic%20critical%20care/Anoxic%20brain%20injury-%20Assessment%20and%20prognosis.htm>
18. National Institute of Neurological Disorders and Stroke. (n.d.). NINDS Cerebral Hypoxia. National Institutes of Health. Retrieved from <http://www.ninds.nih.gov/disorders/anoxia/anoxia.htm>
19. Rozzi, Heather. V., MD, Medical Director, Forensic Examiner Team, York Hospital. (September 22, 2010). Lecture at the Forensics for First Responders conference. York, PA.
20. National Institute of Neurological Disorders and Stroke. (n.d.) NINDS Cerebral Hypoxia. National Institutes of Health. Retrieved from <http://www.ninds.nih.gov/disorders/anoxia/anoxia.htm>
21. Rozzi, Heather. V., MD, Medical Director, Forensic Examiner Team, York Hospital. (September 22, 2010). Lecture at the Forensics for First Responders conference. York, PA.

22. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
23. Barrier (1998) and Gaffigan-Bender (1998). In Car, Mary, PhD, OTDS/OTR/L. (2000). Intimate violence targets the brain. Focus on women, Prevention Matters, vol. 2, (spring 2000).
24. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
25. Boss (1994). In Linking domestic violence and traumatic brain injury. Alabama Department of Rehabilitation Services. (n.d.). PowerPoint.
26. The Why Files: The Science Behind The News. (n.d.). Pie Chart (CDC 2006). Retrieved from <http://whyfiles.org/2010/traumatic-brain-injury>
27. The Why Files: The Science Behind The News. (n.d.). Pie Chart (CDC 2006). Retrieved from <http://whyfiles.org/2010/traumatic-brain-injury>
28. Centers for Disease Control and Prevention. (n.d.). Heads up: Prevent shaken baby syndrome. Injury Prevention & Control: Traumatic Brain Injury. Retrieved from <http://www.cdc.gov/concussion/HeadsUp/sbs.html>
29. Carrigan, T.D., Walker E., & Barnes S. (2000). Domestic violence: The shaken adult syndrome. Case Reports. J Accid Emerg Med, vol. 17. Pp. 138-139. Retrieved from <http://www.ncbi.nlm.nih.gov/pmc/articles/PMC1725330/pdf/v017p00138.pdf>
30. Violence Policy Center. (2007). Facts on firearms and domestic violence. Retrieved from http://www.vpc.org/fact_sht/domviofs.htm
31. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
32. Shulman, Elliott, MD. (October 22, 2010). Augmented pain disorder and chronic pain. PA medical advocates training lecture at Lankenau Hospital, Mainline Health. Wynnewood, PA.
33. BIAA. (n.d.). Facts about traumatic brain injury. About brain injury. Retrieved from: <http://www.biausa.org/aboutbi.htm>
34. Centers for Disease Control and Prevention. (n.d.). What are the potential long-term outcomes of TBI? Retrieved from www.cdc.gov/TraumaticBrainInjury/outcomes.html
35. Wilson, Sharon. R. (2009.). Chapter 14, Traumatic brain injury and intimate partner violence in Connie Mitchell's Intimate partner violence: A Health based Perspective. P. 187. Oxford University Press, Inc., New York: NY.

36. Mount Sinai School of Medicine. (2011). What impact will mild TBI have on a person's life? Frequently asked questions. Resources. Brain Injury Research Center of Mount Sinai. Retrieved from <http://www.mssm.edu/research/centers/brain-injury-research-center-of-mount-sinai/resources/faq/mild-impact>
37. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
38. Callahan, James M. MD, FAAP, FACEP. (October 15, 2010). Pediatric concussions: Acute evaluation and management. Lecture at EPIC-IC Fall Conference on Traumatic Brain Injury. Pennsylvania Medical Home Initiative. Harrisburg, PA.
39. Guskiewicz KM, McCrea M, Marshall SW, Cantu RC, Randolph C, Barr W et al. 2003. Cumulative effects associated with recurrent concussion in collegiate football players: The NCAA Concussion Study. *Journal of the American Medical Association*, vol 290. Pp. 2549-55.
40. Lovell M, Collins M, Bradley J. 2004. Return to play following sports-related concussion. *Clinical Journal of Sports Medicine*, vol 23. Pp. 421-41, ix.
41. Conference on Traumatic Brain Injury. (October 15, 2010.). EPIC-IC Fall Conference on Traumatic Brain Injury. Pennsylvania Medical Home Initiative. PowerPoint. Harrisburg, PA.
42. Giza CC, Hovda DA. 2001. The Neurometabolic cascade of concussion. *Journal of Athletic training*, vol. 36. Pp. 228-35.
43. Conference on Traumatic Brain Injury. (October 15, 2010.). EPIC-IC Fall Conference on Traumatic Brain Injury. Pennsylvania Medical Home Initiative. PowerPoint. Harrisburg, PA.
44. Wilson, Sharon. R. (2009). Traumatic brain injury and intimate partner violence in Connie Mitchell's Intimate partner violence: A Health based Perspective. P. 188. Oxford University Press, Inc., New York: NY.
45. Centers for Disease Control and Prevention. (n.d.). What are the potential long-term outcomes of TBI? Retrieved from www.cdc.gov/TraumaticBrainInjury/outcomes.html
46. Zuckerbraun, Noel, MD, MPH. (October 15, 2010). Let's talk: Management of mild traumatic Brain injury (MTBI) or concussion. Lecture at EPIC-IC Fall Conference on Traumatic Brain Injury. UMPC Children's Hospital of Pittsburgh. Medical Home Initiative. Harrisburg, PA.
47. Wilson, Sharon. R. (2009). Traumatic brain injury and intimate partner violence in Connie Mitchell's Intimate partner violence: A Health based Perspective. 188. Oxford University Press, Inc., New York: NY.
48. Brain Injury.com. (n.d.). Cranial nerve injury. Retrieved from <http://www.braininjury.com/cranial-nerve-injury.html>

49. Centers for Disease Control and Prevention. (n.d.). What are the potential long-term outcomes of TBI? Retrieved from www.cdc.gov/TraumaticBrainInjury/outcomes.html
50. Wilson, Sharon. R. (2009.). Traumatic brain injury and intimate partner violence in Connie Mitchell's Intimate partner violence: A Health based Perspective. 186. Oxford University Press, Inc., New York: NY.
51. Kamen, Deborah S., MS., and O'Dea, Stefani, MA. (2011.). Planning for neurobehavioral needs of individuals with brain injury: The state perspective. Brain Injury Professional, vol 7 (4) 8.
52. Centers for Disease Control and Prevention. (n.d.). Concussion: What can I do to feel better after a concussion? Retrieved from http://www.cdc.gov/concussion/feel_better.html
53. Conference on Traumatic Brain Injury. (October 15, 2010). EPIC-IC Fall Conference on Traumatic Brain Injury. Pennsylvania Medical Home Initiative. PowerPoint. Harrisburg, PA.
54. Wilson, Sharon. R. (2009). Traumatic brain injury and intimate partner violence in Connie Mitchell's Intimate partner violence: A Health based Perspective. 189. Oxford University Press, Inc., New York: NY.
55. Wilson, Sharon. R. (2009). Traumatic brain injury and intimate partner violence in Connie Mitchell's Intimate partner violence: A Health based Perspective. 189. Oxford University Press, Inc., New York: NY.
56. Wilson, Sharon. R. (2009). Traumatic brain injury and intimate partner violence in Connie Mitchell's Intimate partner violence: A Health based Perspective. 186. Oxford University Press, Inc., New York: NY.
57. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
58. Brain injury.com. (2010). Probability of late onset seizures. Latest Medical Research. Retrieved from <http://www.braininjury.com/research.html>
59. Brain Injury.com. (n.d.). Cranial nerve injury. Retrieved from <http://www.braininjury.com/cranial-nerve-injury.html>
60. Mayo Clinic Staff. (n.d.). Complications. Traumatic brain injury. Retrieved from <http://www.mayoclinic.com/health/traumatic-braininjury/DS00552/DSECTION=complications>
61. Brain Injury.com. (n.d.). Cranial nerve injury. Retrieved from <http://www.braininjury.com/cranial-nerve-injury.html>
62. Wilson, Sharon. R. (2009). Traumatic brain injury and intimate partner violence in Connie Mitchell's Intimate partner violence: A Health based Perspective. 189. Oxford University Press, Inc., New York: NY.

63. Lovell, M., Collins, Mickey, PhD., & Bradley, James, MD. (2004). Return to play following a sports-related concussion. *Clinics In Sports Medicine*, vol. 23, 422.
64. Wilson, Sharon. R. (2009). Traumatic brain injury and intimate partner violence in Connie Mitchell's *Intimate partner violence: A Health based Perspective*. 185. Oxford University Press, Inc., New York: NY.
65. Lovell, M., Collins, Mickey, PhD., & Bradley, James, MD. (2004). Return to play following a sports-related concussion. *Clinics In Sports Medicine*, vol. 23, 422.
66. Grady, Matthew, MD. (October 15, 2010). Concussion in the adolescent athlete: Office evaluation. EPIC-IC Fall Conference on Traumatic Brain Injury. Pennsylvania Medical Home Initiative. Harrisburg, PA.
67. Brain injury.com. (n.d.). New marker for TBI. Latest Medical Research. Retrieved from <http://www.braininjury.com/research.html>
68. UPI.com. (2010.). Blood test can detect concussion injuries. Health News. Retrieved from http://www.upi.com/Health_News/2010/10/15/Blood-test-can-detect-concussion-injuries/UPI-82781287172759/
69. Brain injury.com. (n.d.). New imaging helpful in child brain injury cases. Latest Medical Research. Retrieved from <http://www.braininjury.com/research.html>
70. Rabinstein, Alejandro A. and Resnick, Steven J. ND. (n.d.). Hypoxic-Ischemic brain damage, chapter 1, p. 1. Retrieved from <http://www.asia.elsevierhealth.com/media/us/samplechapters/9780750675376/Chapter%2001.pdf>
71. Braininjury.com. (n.d.). Diffusion Tensor Imaging (DTI) advances. Latest Medical Research. Retrieved from <http://www.braininjury.com/research.html>

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MODULE III – INTERSECTIONS: TBI AND DOMESTIC VIOLENCE

Module III participants learn to articulate intersections between Traumatic Brain Injury (TBI) and domestic violence. The information positions participants to link the information to *Module IV, Children, Teens and TBI*, in preparation for *Module V, TBI and Domestic Violence Screening Techniques*.

**Brain Injury
Helpline for
information,
referrals and
resources:
866-412-4755**

Prevalence and Causes

The Significance of TBI in Domestic Violence Populations

- An estimated 36% of domestic violence survivors sustain injuries to the head, neck or face.¹
- Greater than 90% of all injuries secondary* to domestic violence occur to the head, neck or face region.²
- Women seeking medical attention for head, neck and facial injuries are 7.5 times more likely to be survivors of domestic violence than women with other bodily injuries.³
- To conceal visible signs, abusers will often hit survivors in the back of the head.³
- Blunt impact is most common cause of assault-related TBI.⁴
- Penetrating brain injury, secondary to firearms is most lethal.⁴

A study conducted in three separate domestic violence shelters concluded:

- 92% of survivors had been hit on head by abusers; most of the survivors were hit more than once.⁵
- 83% of survivors had been hit on the head and severely shaken.⁵
- 8% had been hit over 20 times in the past year.⁵
- Increased numbers of reported TBI assaults correlated with more severe symptoms.⁵

What Acts of Domestic Violence Result in TBI?

- Forcefully hitting a survivor on the head with an object⁶
- Shaking the survivor, which moves the brain in a whiplash motion, smashing the brain against the skull⁶
- Pushing a survivor down the stairs⁶
- Throwing a survivor, or causing that person to fall, and hit her head⁷

* May happen hours or days after primary injury.

- Causing loss of oxygen through strangling, attempted drowning, or forced ingestion of food or drug allergens⁸
- Shooting or stabbing survivor in the head⁸
- Slamming a survivor's head against the wall, floor, sidewalk, or anything hard or firm⁸
- Forced or coerced erotic asphyxiation, which causes a state of anoxia.
- Results in 500 to 1,000 deaths annually⁹

Homelessness, Domestic Violence and TBI

Landlords sometimes turn away or evict domestic violence survivors leaving them homeless; many of these people may live with difficulties from TBI.

- A Toronto study of homeless men and women found that 58% of men and 42% of women were found to have a history with TBI.
 - Many of the participants experienced their first TBI at a young age, possibly creating a life of circumstances that led to homelessness.¹⁰
- A lack of affordable housing options and long waiting lists for assisted housing often leave a survivor, possibly with children, to choose between living on the streets or with an abuser.¹¹

Repeat Injury

Repeat injury to the head, face or neck can cause:

- Second Impact Syndrome, also known as Subsequent Impact Syndrome (SIS)

SIS results from:

“Acute, usually fatal brain swelling that occurs when a second concussion is sustained before complete recovery from a previous concussion that causes vascular congestion and increased intracranial pressure, which may be difficult or impossible to control”.¹²

Repeat Brain Injury:

- Is typical of ongoing domestic violence
- Leads to increased cognitive, physical or emotional dysfunction over time¹³
- Is most damaging to the cognitive domain¹³

What happens when there are repeated blows to the head?

- Injuries accumulate, symptoms increase, and the person become less functional with a longer healing time¹⁴
- A survivor's risk of continued harm is increased¹⁵

The risk of repeat TBI is high for individuals who are survivors of domestic violence since the most common target of abuse is the head, face and neck.¹⁶

- After the first TBI, the risk of second injury is 3 times greater.¹⁶
- After the second TBI, the risk of a third injury is 8 times greater.¹⁶

The risk of injury may increase proportionately with assaults because several things may be happening for a survivor as a result of TBI:

- Reaction time and judgment are compromised¹⁶
- Inability to tune in adequately¹⁶ to surroundings or cues
- Cognitive changes that cause impulsivity¹⁶

As a result, injuries to the head may become a regular occurrence from:

- An abuser taking advantage of the power to magnify cognitive injury
- Subsequent injuries as a result of cognitive damage

It is reasonable to conclude that the risk of multiple TBIs in the domestic violence population should be a primary concern.¹⁶

Medical Treatment, Domestic Violence and TBI

An unknown number of individuals do not seek any medical attention. Here is a list of typical situations where a person may never seek medical treatment:¹⁶

- Domestic violence occurrences¹⁶
- Barroom brawls¹⁶
- Child abuse/shaken baby syndrome¹⁶
- Sports injuries¹⁶

Undiagnosed or untreated head injuries may be attributed to:

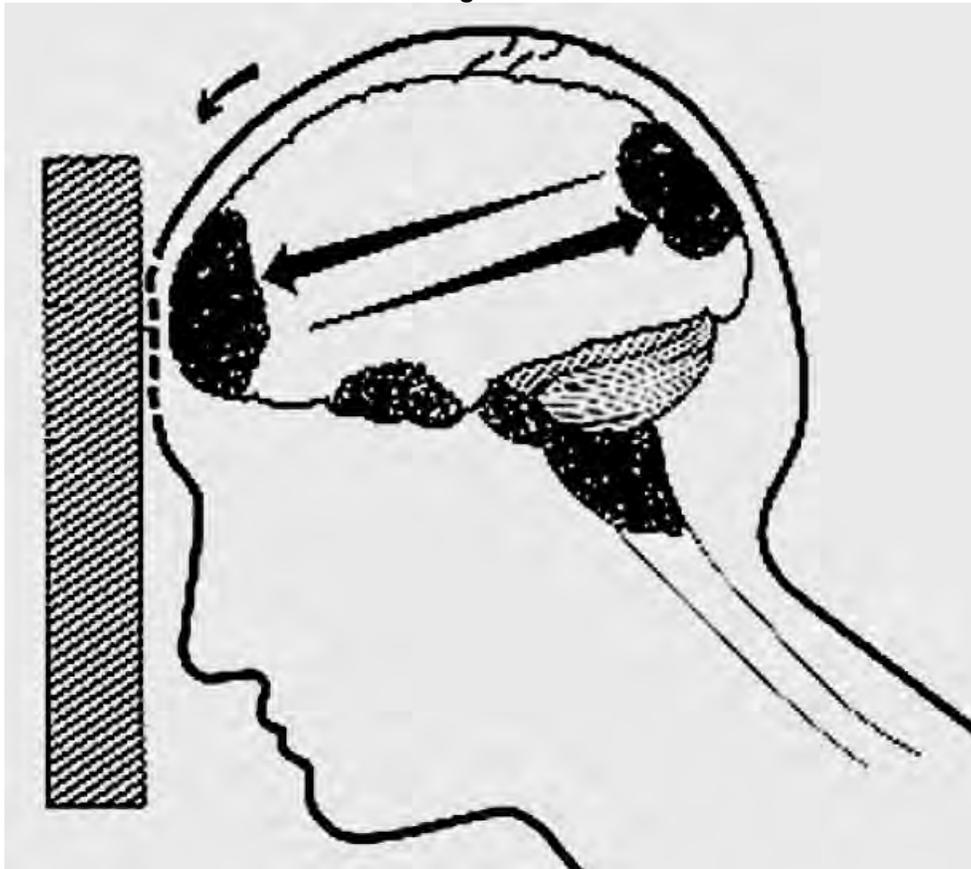
- Imprecise information gathering¹⁷
- Underreporting¹⁷
- Misdiagnosis¹⁷
- Lack of recognition for late-developing neurologic and endocrine symptoms¹⁷
- Failure to recognize range of TBI-related dysfunctions¹⁷

The Impact of TBI on Domestic Violence Survivors

The illustration below depicts an example of brain motion when a person's head impacts a solid mass, such as a wall, causing damage to the brain.

- The arrows show damage to the frontal and temporal lobes of the brain through twisting, as well as forward and backward motions of the brain¹⁸
- The shaded areas at the base of the brain and brainstem also represent damage due to the twisting motion of the brain¹⁸

Figure 3-1



TBI and Brain Function

“Living without connection...that’s how I felt...there was no connection and there were so many missing links as I tried to begin living again...it was kind of like living in the middle of nowhere...”

Quote from a brain injury survivor¹⁹

TBI can cause changes for a domestic violence survivor that an abuser may use to his advantage to further oppress and control that survivor.

Frontal Lobe

Frontal Lobe functions are more likely to be disrupted following a traumatic brain injury.

The Frontal Lobe is home of the “Executive Functions:”²⁰

- Attention and concentration²⁰
- Self-monitoring²⁰
- Organization²⁰
- Speaking expressively²⁰
- Motor planning and initiation²⁰
- Awareness of abilities and limitations²⁰
- Personality²⁰
- Mental flexibility²⁰
- Inhibition of behavior²⁰
- Emotions²⁰
- Problem solving²⁰
- Planning and anticipation²⁰
- Judgment²⁰

Executive impairments, such as those listed above, may exist in various combinations and create genuine difficulties for individuals in day-to-day functioning after TBI.

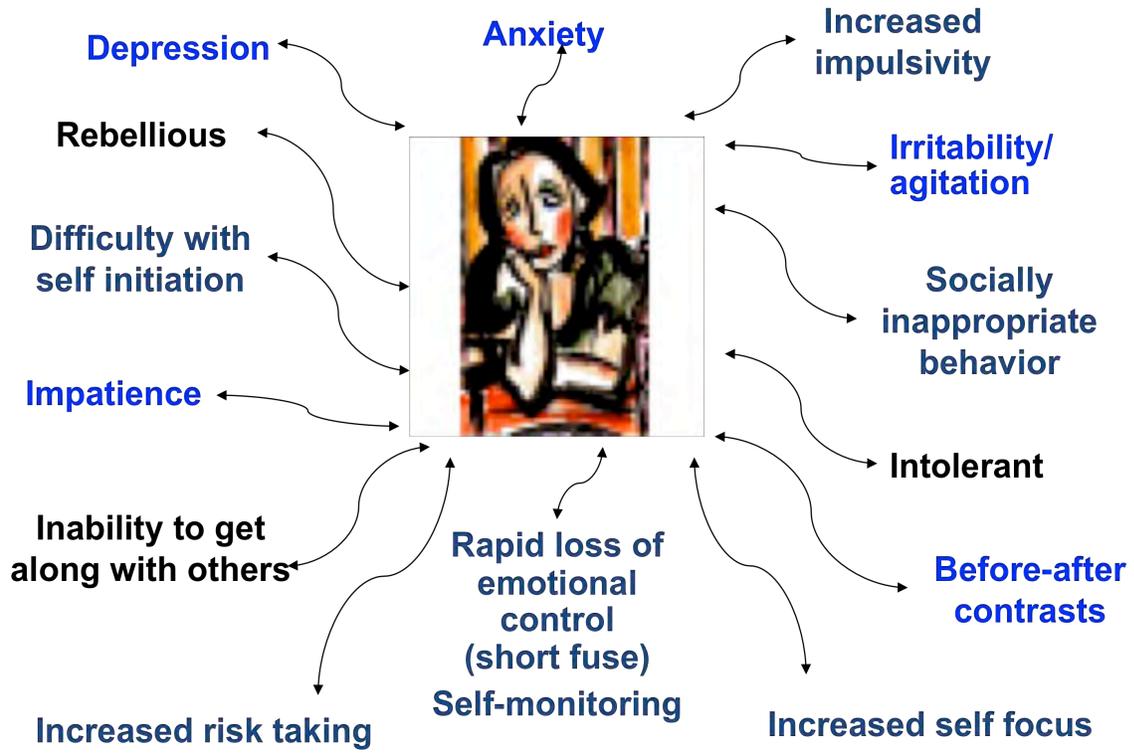
- Often a person will still function under the idea of who she was before an injury without the same functioning abilities.²¹

Frontal Lobe Damage

The frontal lobe is also explained as the “home” of personality and emotions. Someone with TBI may have trouble monitoring her behaviors and emotions.

As a result of damage to the frontal lobe, individuals may present with a range of emotional and behavioral changes.

Figure 3-2:²² Common Behavioral and Emotional Changes



Common emotional changes associated with Frontal Lobe damage include:

- Depression (14%-61% of people with TBI)²²
- Anxiety (symptoms often include irritability, impatience and agitation)

When working with people who suffer from TBI and depression, advocates may hear a survivor compare abilities “before” and “after” the TBI.

- For example, someone with TBI may observe, “Before I could [*fill in the blank*] now I can’t [*fill in the blank*]”²³

Common behavioral changes associated with Frontal Lobe damage include:

- Increased impulsivity²³
- Increased risk taking²³
- Increased self focus²³
- Difficulty relating to others²³
- Rebelliousness or intolerance²³
- Disinhibitions, uncensored sexual thoughts, feelings or actions²⁴

Temporal Lobe

Temporal Lobe Functions:

- Memory²⁵
- Understanding receptive language (following spoken or written words)²⁵
- Sequencing²⁵
- Hearing²⁵
- Organization²⁵

Parietal Lobe

Parietal Lobe Functions:

- Sense of touch²⁵
- Spatial perception²⁵
- Differentiation (identification) of size, shapes and colors²⁵
- Visual perception²⁵

Cerebellum

Cerebellum Functions:

- Balance²⁵
- Skilled motor activity²⁵
- Coordination²⁵
- Visual perception²⁵

Occipital Lobe

Occipital Lobe Functions:

- Vision²⁵

Brain Stem

Brain Stem Functions: (Refer to Figure 1-2.)

- Breathing²⁵
- Arousal and consciousness²⁵
- Attention and concentration²⁵
- Heart rate²⁵
- Sleep and wake cycles²⁵

Left Side

Injuries of the left side of the brain can cause:

- Difficulties in receptive language²⁵ (following spoken or written words)
- Difficulties in expressive language²⁵ (expressing the self in speech, including word recall)
- Catastrophic reactions²⁵ (depression, anxiety)
- Verbal memory deficits²⁵
- Impaired logic²⁵
- Sequencing difficulties²⁵
- Decreased control over right-sided body movements²⁵

Right Side

Injuries of the right side of the brain can cause:

- Visual-spatial impairment²⁵
- Visual memory deficits²⁵
- Left neglect (inattention to the left side of the body)²⁵
- Decreased awareness of deficits²⁵
- Altered creativity and music perception²⁵
- Loss of “big picture” type of thinking²⁵
- Decreased control over left-sided body movements²⁵

Diffuse Brain Injury

Diffuse Brain Injury is explained as injuries dispersed through both sides of the brain, which can cause:

- Reduced thinking speed²⁵
- Confusion²⁵
- Reduced attention and concentration²⁵
- Fatigue²⁵
- Impaired cognitive (thinking) skills in all areas²⁵

Common Issues Associated With TBI

TBI may be misdiagnosed and misunderstood as:

- A mental health issue
- Addiction
- Just a bump (but not TBI)

TBI is often characterized by **sudden** change(s) in the survivor's:

- Mood and emotional control²⁶
- Motor control²⁶
- Thinking abilities²⁶

The most common issues after a TBI are changes in:

- Physical functioning²⁶
- Thinking²⁶
- Emotional and behavioral control²⁶

Sexual Functioning

Changes in sexual functioning are common.

- An abuser may be able to use changes in sexual functioning to his advantage.

The frontal and temporal lobes are associated with sexual functioning. Depending on the damage to these areas, survivors can experience changes such as:²⁷

- Inappropriate or hypersexual behavior²⁷
- Loss of or decreased sexual functioning, satisfaction and/or desire²⁸

Changes in sexual function can result in:

- Changed feelings of attractiveness or body image²⁹
- Social isolation²⁹

Sleep Disorders

Sleep disorders associated with TBI:

- A 2007 study found that 40-65% of study participants with mild TBI suffer from insomnia and 36% have circadian rhythm sleep disorder³⁰ (disorder of the sleep-wake cycle).
- The study noted that “these disorders can lead to psychological and cognitive problems and can interfere with rehabilitation.”³⁰
- A large percent of those who live with TBI may also suffer from sleep apnea (recurrent cessation of breathing while sleeping), a condition that markedly increases the risk of motor vehicle crashes.³¹

Physical Issues

The most common physical problems are after a TBI are:

- Headaches³²
- Fatigue³²

And

- Overall slowing³²
- Clumsiness³²
- Decreased vision/hearing/smell³²
- Dizziness³²
- Increased sensitivity to noise/bright lights³²
- Changes in sexual functioning³³

Mental Health Issues

The most common mental health issues after a TBI are:³⁴

- Reduced concentration³⁴
- Reduced visual attention³⁴
- Inability to divide attention between competing tasks³⁴
- Slow thinking³⁴
- Slow reading³⁴
- Slow verbal and written responses³⁴

While headache and extensive fatigue are the most common and persistent complaints, reduced attention and processing speed are two of the most common changes after a TBI.³⁴

Other Issues

Attention issues include difficulty with:

- Concentration³⁴
- Paying attention to visual details³⁴
- Managing two differing tasks³⁴

Processing speed issues include difficulty with:

- Moving³⁴
- Thinking³⁴
- Reading³⁴
- Talking³⁴

Communication problems include difficulty with:³⁴

- Finding the right words, naming objects the person would normally know or use³⁴
- Disorganized communication in conversation³⁴

Learning and memory:

Learning new information is almost universally impaired after a TBI.

- Information before the TBI tends to remain intact³⁴
- Reduced ability to remember new information³⁴
- Problems with learning new skills³⁴

Thinking changes and executive functioning:

- Difficulty planning/ setting goals³⁴
- Difficulty being flexible³⁴
- Difficulty problem solving³⁴
- Difficulty prioritizing³⁴
- Decreased awareness of thinking changes in self³⁴
- Problems being organized³⁴

A survivor who lives with the compounding results from TBI may:

- Have difficulty remembering or learning new information³⁴
- Be inconsistent in their performance³⁴
- Have poor judgment and decision-making abilities³⁴
- Have difficulty generalizing to new situations³⁴
- Lack awareness of post-TBI difficulties³⁴

It is important to remember:

- No two people are alike; no two survivors are alike; no two TBIs are alike.³⁴
- The effects of a brain injury can depend on factors such as cause, severity, location on the brain³⁴, and number of subsequent impacts.³⁵
- Personal adjustment to the symptoms is often related to how much a person experiences a sense of loss associated with the TBI.³⁶
- Extent of damage, such as subsequent impacts or one disabling impact.

TBI may impact one or many facets of an individual's life resulting in significant additional challenges for someone living with domestic violence.

After TBI occurs, there may be a range of socio-ecological challenges that did not exist before a TBI.

These include:

- Vocational and/or school problems
- Collapse of family life/social relationships
- Increased financial burden on families and social service systems
- Alcohol and drug abuse
- Chronic depression/anxiety

An individual may:

- Find a need to take a different path in life
- Change her vocation
- Be unable to resume work or school patterns or responsibilities that were in place before the TBI
- Find that family and social relationships change or suffer causing social isolation
- Suddenly become dependent on family or social service systems for financial support
- Have new or increased mental health needs or substance abuse issues³⁶

An individual with TBI may have difficulty recognizing “the emotions of others from facial expressions.”³⁷

The results could lead to compromised:

- Social and familial relationships
- Work or educational opportunities
- Care for children
- Domestic violence program experience

Summary

Module III participants articulate intersections between TBI and domestic violence and link the information to *Module IV, Children, Teens and TBI*, in preparation for learning to apply enhanced screening techniques.

Reference List: Module III

1. Wilson, Sharon. R. (2009). Traumatic brain injury and intimate partner violence in Connie Mitchell's *Intimate partner violence: A Health based Perspective*. 187. Oxford University Press, Inc., New York: NY.
2. Monahan and O'Leary (1999). Linking domestic violence and traumatic brain injury (n.d.). Alabama Department of Rehabilitation Services. Maternal and Child Health Bureau. United States Department of Health and Human Services.
3. Wilson, Sharon. R. (2009). Traumatic brain injury and intimate partner violence in Connie Mitchell's *Intimate partner violence: A Health based Perspective*. 187. Oxford University Press, Inc., New York: NY.
4. Wilson, Sharon. R. (2009). Traumatic brain injury and intimate partner violence in Connie Mitchell's *Intimate partner violence: A Health based Perspective*. 185. Oxford University Press, Inc., New York: NY.
5. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
6. New York State Office for the Prevention of Domestic Violence. (2008). What do professionals need to know? Retrieved from <http://www.opdv.state.ny.us/professionals/tbi.intersection.html>.
7. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
8. New York State Office for the Prevention of Domestic Violence. (2008). What do professionals need to know? Retrieved from <http://www.opdv.state.ny.us/professionals/tbi.intersection.html>.
9. Livestrong. (2009). Autoerotic asphyxiation. Retrieved from <http://www.livestrong.com/article/14014-autoerotic-asphyxiation/>.
10. Braininjury.com. (n.d.). Traumatic brain injury common among homeless. Latest Medical Research. Retrieved from <http://www.braininjury.com/research.html>.
11. National Coalition for the Homeless. (2009). Domestic violence and homelessness. Retrieved from <http://www.nationalhomeless.org/factsheets/domestic.html>.
12. Brain Injury Resource Center. (1998). Brain injury in sports. Retrieved from <http://www.headinjury.com/sports.htm#guidelines>.

13. Alabama Department of Rehabilitation Services. (n.d.). Linking domestic violence and traumatic brain injury. Maternal and Child Health Bureau. United States Department of Health and Human Services. PowerPoint.
14. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
15. Hibbard, Mary R., (1999). Linking domestic violence and traumatic brain injury. (n.d.). Maternal and Child Health Bureau. Alabama Department of Rehabilitation Services. United States Department of Health and Human Services.
16. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
17. Wilson, Sharon. R. (2009). Traumatic brain injury and intimate partner violence in Connie Mitchell's *Intimate partner violence: A Health based Perspective*. 187. Oxford University Press, Inc., New York: NY.
18. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
19. Lorenz, Laura S. (2010). Visual metaphors of living with a brain injury: Exploring and communicating lived experience with an invisible injury. *Visual Studies*, vol. 25 (3), 212.
20. Brain Injury Association of America. (2011). Living with brain injury. Retrieved from <http://www.biausa.org/living-with-brain-injury.htm>.
21. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
22. Sander, Angelle. (2011). Integrating sexuality into traumatic brain injury rehabilitation. Brain injury and sexuality. *Brain Injury Professional*, vol. 7(1), 9.
23. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
24. Ulrich, Anne OTR/L, CBIS and Newton, Mary, LMSW, PhD Candidate, CBIS. (2011). Disability and sexual expression: Debunking the myths and working to break down barriers. Brain injury and sexuality. *Brain Injury Professional*, vol. 7(1), 16.
25. Brain Injury Association of America. (2011). Living with brain injury. Retrieved from <http://www.biausa.org/living-with-brain-injury.htm>.
26. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.

27. Sander, Angelle. (2011). Integrating sexuality into traumatic brain injury rehabilitation. Brain injury and sexuality. *Brain Injury Professional*, vol. 7(1), 9.
28. Sander, Angelle. (2011.. Integrating sexuality into traumatic brain injury rehabilitation. Brain injury and sexuality. *Brain Injury Professional*, vol. 7(1), 8.
29. Sander, Angelle. (2011.). Integrating sexuality into traumatic brain injury rehabilitation. Brain injury and sexuality. *Brain Injury Professional*, vol. 7(1), 9.
30. Brain injury.com. (2010). Mild head injury increased risk of sleep disorder. Latest Medical Research. Retrieved from <http://www.braininjury.com/research.html>.
31. Brain injury.com. (2010). Sleep apnea and head injury: A new risk. Latest Medical Research. Retrieved from <http://www.braininjury.com/research.html>.
32. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
33. Sander, Angelle. (2011). Integrating sexuality into traumatic brain injury rehabilitation. Brain injury and sexuality. *Brain Injury Professional*, vol. 7 (1), 8.
34. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
35. Collins, Mickey, Ph.D. (October 15, 2010). Data based management of sports concussion: What are we learning? University of Pittsburgh Medical Center, UMPC Sports Concussion Program. Pennsylvania Medical Home Initiative. EPIC-IC Fall Conference lecture on traumatic brain injury. Harrisburg, PA.
36. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
37. Brain injury.com. (2010). Face recognition impairment with TBI. Latest Medical Research. Retrieved from <http://www.braininjury.com/research.html>.

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**Traumatic Brain Injury
As a Result of Domestic Violence:**
Information, Screening and Model Practices

Participant's Guide

Module IV— Children, Teens and TBI



Content

Module IV– Children, Teens and TBI

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MODULE IV – CHILDREN, TEENS AND TBI

Module IV participants learn prevalence, symptoms, behavioral and emotional changes, and healing and domestic violence advocacy measures as they pertain to babies, older children and teens with TBI.

**Brain Injury
Helpline for
information,
referrals and
resources:
866-412-4755**

“The lights are too bright and it’s too loud. I get sick to my stomach from the lunchroom smell. I get a bad headache everyday. I just can’t be there; it’s too hard with everything they make me do. I just can’t.”

Eleven-year old healing from concussion, commenting on school experience

Prevalence and Causes

Millions of children between 0-19 years of age sustain TBI’s in the United States each year.¹

- 564,000 children are seen in hospital emergency room departments and released.¹
- 62,000 children sustain brain injuries and require hospitalization.¹
- Approximately 1,300 U.S. children experience severe or fatal head trauma from child abuse each year.¹

TBI causes for youth include:

- Sports
- Accidents
- Peer/social assault
- Dating abuse
- Child abuse, including Shaken Baby Syndrome

Yearly statistic for children in PA ages 0-14:²

- 120 deaths²
- 1,700 hospitalizations²
- 20,000 emergency department visits²

Children have a longer expected recovery time than adults with TBI.²

Accounting For Differences

The topic of children, teens and TBI necessitates a different discussion than that of TBI that occurs in adulthood.

Childhood experiences in the formative years affect lifelong well-being and types of development:

- Physical
- Physiological
- Emotional
- Social
- Intellectual
- Behavioral
- Hormonal development
- Other

In working with children who have suffered TBI and live in a home with domestic violence, advocates can discuss with caregivers ways to help increase a child's or teen's abilities for:

- Self care³
- Self-advocacy
- Communication
- Understanding when events are turning against them and how to cope with such situations

Implementing protective measures is another way to keep children with TBI safer; this is an important consideration for children who live or have lived in a home with domestic violence.

Advocates may find some parents need to discuss:

- Ways to find trustworthy and well trained care providers
- Ways to keep lines of communication open and honest between parent and child.
- Healthy relationships and boundaries

TBI and Babies

An abuser may have access to a baby who lives at home with them or through shared custody, whether or not a survivor is staying in a domestic violence shelter.

- Advocates may choose to work with the survivor to understand the prevalence, signs and implications of Shaken Baby Syndrome (SBS), a cause of TBI in babies

Shaken Baby Syndrome (SBS) is:

- Abusive Head Trauma⁴
- Inflicted Traumatic Brain Injury⁴

Babies newborn to four months are at greatest risk from being shaken.⁴

SBS happens when a baby is:

- Shaken⁴
- Dropped⁴
- Thrown⁴
- Otherwise caused to have head impact⁴

Parents or caregivers may shake or strike a baby because of:

- Frustration
- Exhaustion
- Lack of coping skills
- Unrealistic expectations about child-development/child-rearing⁵
- **Being a survivor of or witness to domestic violence⁵**

The risk of SBS increases when a baby is:

- Crying inconsolably⁵
- Premature or has a disability⁵
- One in a multiple-child birth⁵
- Less than 6 months of age⁵

A baby's neck muscles are not well developed and cannot manage a vigorous shaking movement or impact to the head.

- Such movement causes the baby's brain to swell, bruise and bleed. Nerves may rupture and brain tissue may tear⁶

SBS:

- Is the leading cause of child abuse deaths in the United States⁷
- Is most commonly found in children three to eight months old⁸
- Can be seen in children up to five years old⁸

SBS Symptoms

Advocates may find the need to discuss SBS symptoms with survivors who are mothers of young children or babies.

Severe Symptoms Include:

- Death⁹
- Convulsions/ Seizures⁹
- Blindness⁹ or Hearing Issues
- Cerebral Palsy⁹

Lesser Symptoms Include:

- Change in sleeping patterns or an inability to be awakened⁹
- Irritability⁹
- Inconsolable crying⁹
- Lack of appetite⁹
- Motor dysfunction⁹
- Muscle spasticity⁹
- Developmental delays or learning disabilities⁹

TBI and Children

The extent of a child's head injury may not be apparent at first.

- A head injury can cause neurological problems and may require further medical follow up.¹¹

The diagnosis of a head injury is made through a physical examination and/or diagnostic testing by a physician who:

- Obtains a complete medical history of the child and family¹¹
- Asks how the injury occurred¹¹

The medical severity of TBI does not necessarily equal the length or depth of outcome.

- A child who does not lose consciousness may have more difficulty post-incident than a child who has lost consciousness.¹²

Most children who suffer from a mild TBI will make a complete recovery.¹³

- Within hours to days, with no apparent symptoms¹³
- Within weeks for a complete recovery¹³
- Beyond 1-3 months is uncommon and challenging¹³

Children, just like adults, experience varying TBI symptoms to differing degrees.¹⁴

Symptoms

Listed here are the most common mild symptoms of a head injury.

| |
|--|
| Raised, swollen area on head from a bump or a bruise |
| Small, shallow cut in the scalp |
| Headache |
| Sensitivity to noise and light |
| Irritability |
| Confusion |
| Lightheadedness and/or dizziness |
| Problems with balance |
| Nausea |
| Problems with memory or concentration |
| Change in sleep patterns |
| Blurred vision |
| "Tired" eyes |
| ringing in the ears |
| Alteration in taste |
| Fatigue/lethargy |

Chart 4-1: Mild Symptoms¹⁴

Listed here are the most common moderate to severe symptoms of a head injury.

| |
|--|
| Loss of consciousness |
| Severe headache that does not go away |
| Repeated nausea and vomiting |
| Long or short term memory problems, such as difficulty remembering the events that led right up to and through the traumatic event |
| Slurred speech |
| Difficulty with walking |
| Weakness in one side or area of the body |
| Sweating |
| Pale in color |
| Seizures or convulsions |
| Behavior changes including irritability |
| Blood or clear fluid draining from the ears or nose |
| One pupil looks larger than the other |
| Deep cut in the scalp |
| Open wound in the head |
| Foreign object penetrating the head |
| Coma, vegetative state or immobility |

**Chart 4-2: Moderate to Severe
Requiring Immediate Attention¹⁴**

Behavioral and Emotional Changes May Include:¹⁵

- Disinhibition
- Temper outbursts
- Easily frustrated
- Inappropriate sexual behavior
- Apathy/Loss of motivation
- Difficulty initiating or completing tasks
- Mood swings
- Emotional lability
- Rigid thinking or behavior

Advocacy Tips



Behaviors that reflect the above listed TBI symptoms do not automatically mean a child has TBI. Advocates can talk to parents about watching for sudden change(s) in behavior, or complaints associated with TBI, after a definite or suspected bump on the head that may need attention, for instance, after a fall down the stairs or accident on the playground.



Advocates may want to suggest to parents to make a trip to the hospital emergency room if a child returns from a mandated visit with an abuser, or other care provider, with possible TBI symptoms.



Advocates can suggest that parents take child/ren to a doctor for any suspected medical concern.

Children and Healing from TBI

Symptom assessment and the healing process are individualized as they vary from child to child.

Treatment is based on the:

- Condition and co-existing factors¹⁶
- Individual symptomatic progress

In some cases children need to be monitored by a medical professional for increased intracranial pressure since some TBI's may cause the brain to swell¹⁶ and children tend to be more susceptible to brain swelling after impact.¹⁷

When treating TBI, medical practitioners consider:

- A child's age, overall health and medical history¹⁸
- The extent of the head injury¹⁸
- The type of head injury¹⁸
- A child's tolerance for specific medications, procedures or therapies¹⁸

- Expectations for the course of the head injury¹⁸
- A parent or care provider's informed opinion or preference for the course of treatment¹⁸

As domestic violence advocates work with survivors whose children have TBI, advocates may find that the child's parent needs additional support as the parent supports her child through the healing process.

An advocate can be familiar with basic treatment considerations in order to have an informed discussion with a domestic violence program parent.

Advocacy Tips

-  **Questions may surface over time as parents/caregivers gain more information and have more time to consider the circumstances or see changes in symptoms.**
-  **Advocates can remind parents/caregivers to ask medical professionals critical questions and for clear answers in order to make informed decisions.**
-  **Advocates can remind program parents to keep a dated list of a child's symptoms, to show medical professionals as needed, after a bump on the head.**

Abused children are at risk for Second Impact Syndrome (SIS):

- With subsequent hits, shakes or jostles, there is a risk for more brain inflammation and damage¹⁹
- Though it is rare, 2% of children with SIS do not recover fully and risk death¹⁹

Clinical Treatment for TBI may include:²⁰

- Observation
- Ice on the area
- Immediate medical attention
- Topical antibiotic ointment/adhesive bandage
- Stitches
- Surgery
- Diagnostic testing
- Rest

20%-49% of children who sustain a TBI develop agitation and aggression, usually within a year of the injury²¹

TBI symptoms increase with exertion²² and healing time can be lengthened

For children who do too much in the first four weeks after a mild TBI incident:²²

- There is a risk of cognitive regression from progress made in the healing period²²

Healing = Rest, Time, and Fluids²²

Some teens involved in high impact sports may be at an increased risk for Subsequent Impact Syndrome due to the possibility of pre-existing or chances of injury from domestic violence in the home or teen dating violence.



Advocacy Tip: Advocates or domestic violence program educators in middle through high schools and colleges may want to work with athletic trainers, coaches or other sports professionals, who administer baseline head injury tests, on using the HELPPS tool as a guide to assess for pre-test head injuries as a result of domestic or dating violence.

Athletes must be symptom-free and cleared to play by a concussion specialist:²³

- Athletic clearance is beneficial for children who have TBI from a domestic violence incident(s)
- Computerized Neuropsych Testing is available: ImPACT[™] (Immediate Post-Concussion and Cognitive Testing)²⁴/CogSport²⁵ are commercially available baseline tests to help detect TBI

Support Measures for a Child with TBI

Advocates may find that the parent of a child with TBI needs to discuss the support process. Advocates may want to become familiar with basic support measures to have an informed discussion.

Supporting a child with TBI may mean helping the child to:

- Establish strategies and support for academic and social success
- Learn in a new way
- Work with pre-existing difficulties in a new way
- Identify when they are trying to do too much academically, socially, and/or physically
- Relearn some materials
- Make changes in curriculum and life goals



Advocacy Tip: The brain must have time to heal in order to hasten recovery time. Cognitive rest includes no school, studying, texting or video games.²⁶

Teens and TBI

Advocates may develop a well-rounded understanding of teen dating violence and TBI to provide informed advocacy support to teens.

Teen Dating Violence and TBI

72% of 8th and 9th graders date.²⁷

1 in 4 dating adolescents report verbal, physical, emotional, or sexual abuse.²⁷

About 10% of students report being physically hurt by a dating partner in the last 12 months.²⁷

One in four teen girls who are in a relationship report they are pressured into performing oral sex or engaging in sexual intercourse.²⁸

42% of boys and 43% of girls say the abuse occurs in a school building or on school grounds.²⁸

Teen dating circumstances and TBI causes may differ from that of adults due to biological, social and other developmental differences.

Teens:

- Are very early in the process of developing intimate relationship maturity²⁹
- Spend time in places such as school, after school programs, teen-based social situations, friends' homes, or walking or driving aimlessly around the neighborhood or to specific destinations
- Live in familial and social locations between cultural/generational shifts
- Have an underdeveloped center of the brain responsible for "rational and high-order thinking" (pre-frontal cortex)²⁹
- Experience changes due to puberty²⁹ (emotional, hormonal, social, physical)

Teen-situated abuse is similar to adult-situated abuse because tactics of power and control remain the root elements in both circumstances and can result in serious injury, including TBI. However, the location for the abuse to take place, and the expressions and tactics of abuse may look different between teens than between adults (with which domestic violence advocates tend to be most familiar).

Causes of TBI among dating teens may include:

- Forced down to hit head on hard surface during sexual or physical assault
- Shoving into a hard surface such as a school wall, door or locker
- Shoving down onto grass or playground surface
- “Play” hitting or slapping that escalates into violence
- Injuries from “wrestling” that becomes abusive
- Hit on the head, strangled or suffocated
- Near drowning
- Kicking
- Gunshot or stab wound to the head
- Forced erotic asphyxiation that results in a state of anoxia
 - Results in 500 to 1,000 deaths annually

Erotic asphyxiation is commonly called *Autoerotic* asphyxiation because it is generally thought of as a solitary practice.³⁰ Yet, because of the prevalence of sexual abuse and the prevalence of strangulation among domestic violence survivors, the practice will be included in the realm of possible abuse tactics.

A TBI may magnify the following common problems for teens ten-fold:³¹

- Problem-solving, judgment and reasoning issues³¹
- Memory and attention difficulties³¹
- Trouble reading social messages³¹
- Changes in hormones, emotions, actions and behaviors³¹

Teens, TBI and Sexuality

Thinking about teens as sexual people and discussing sexuality with teens tends to be a troubling topic for many adults.

Adolescence tends to be a time of experimentation in many ways. An individual with a brain injury has the same, if not higher potential, to experience risky rites of passage into young adulthood.³¹

A TBI may uniquely impact teen dating/ sexual experiences.

- Teens with TBI are also managing intense hormonal, physical and other developmental changes.³²
- It is crucial that caring adults in the lives of teens with TBI not shy away from discussing sexual behavior, boundaries, healthy relationships and dating abuse.

Sexual behavior is a problem for some teens with TBI.

- Some of these behaviors can even result in perpetrator behaviors.³²

Perpetrator behaviors can include:

- Inappropriate touch³²
- Exhibitionism³²
- Sexual aggression³²
- Sexual abuse

If a rehabilitation program is part of a teen with TBI's healing process:

- Advocates can discuss ways to empower a teen or caregiver to make sure sexuality issues are included as part of the rehabilitative program³³

The length of time since the injury can affect:

- How a teen sees herself³³
- Levels of possible depression and changes in social, behavioral or sexual functioning³³

The more able a teen is to participate in life-defining activities with peers:

- The less disruptive the brain injury³³

General Advocacy for Children and Teens with TBI

Children and teens with TBI need a loving and secure support system within their community, such as:

- Family
- Friends
- School educators and other staff (teachers, principals, guidance counselors, nurses)

Some children and teens may require life-long medical and rehabilitative support. It is important to focus on maximizing the person's capabilities at home and in the community.³⁴

Positive reinforcement will encourage the child or teen to:

- Strengthen his/her self-esteem
- Work toward independence³⁴

Domestic violence advocates cannot:

- Expect to arrange changes for a child with TBI

Domestic violence advocates can:

- Be prepared for an informed discussion with program parents who have the need to discuss ways to accommodate the child or teen with TBI

Parents may want to work with a team of outside support professionals, such as rehabilitation therapists, counselors and doctors to consider:³⁵

- Drafting a behavioral plan that builds self-monitoring and awareness skills³⁵
- Ways to meet a child's social, practical and non-verbal communication needs³⁵
- Arranging an extended school year³⁵ or modified work load or school day
- Developing a plan for social, academic and environmental transitions³⁵
- Creating a strong educational plan for the child's current and upcoming teachers, and other school staff³⁵

School accommodations may include:

- Full days of school as tolerated³⁵
- Half days of school as tolerated³⁵
- Restricted gym class activity³⁵
- Untimed, open-book, take home or shortened tests³⁵
- Reduction of class work time by 50%³⁵
- Frequent breaks from class when symptoms begin to surface (put head down on desk, go to nurse, call to go home if necessary)³⁵
- Extended time on homework and class projects³⁵
- Mandated removal of a dating abuser from a survivor's learning environment

Advocacy Tips:



Removal of an abuser from the school community in a dating abuse situation may depend on whether there is a Protection From Abuse order and on its provisions. To support this and other safety measures, advocates may suggest ways to coordinate a safety and support team made up of:

- **Child/teen survivor**
- **Parent**
- **Domestic violence advocate**
- **School counselor**
- **'Key' support teacher**



Students with TBI face particular challenges. Students with TBI who come from homes with domestic violence are facing additional compounding issues and feelings.

Advocates may find that children (or mothers of children) using the services of domestic violence programs have the need to discuss certain topics pertaining to the child with TBI:

Such changes may relate to:³⁵

- Changes in environment, routine and expectations
- Loss of peer support, including friends and other relationships
- Self-comparison to peers
- Changes in family dynamics
- Disruption in normal brain development
- Problems reconciling “old” and “new” self
- A fluctuation in academic performance and other skills
- Athletic restrictions, changes or setbacks

Prevention of Head Injuries in Children and Teens

When working with a domestic violence program parent of a child with TBI, advocates can discuss safety measures in the shelter and/or home environment:

- Strive for a safe shelter/home environment for children free of domestic violence and other hazards.
- Strive for a safe playing environment for young children.³⁶
- Insist that a child sit in a car seat or wear a seatbelt when riding in the car.
 - Parents or caregivers can set a good example by making sure they wear seatbelts.³⁶
 - Advocates may be able to help program parents locate suitable car seats through donations or community resources.
- Make sure helmets are worn properly when bicycle riding, ice or street skating and skateboarding.³⁶
 - Advocates may be able to help program children and adults locate helmets, through donations or community resources, to help minimize risk of brain re-injury.
- Work with other parents to minimize social risk factors, such as careless or aggressive play, in the neighborhood or shelter.
 - Parents can work to establish a system for intervention when they see or hear about bullying.
- Talk to teens about teen dating violence and the risk for all types of injury.
 - For more information go to:
 - www.loveisrespect.org
 - www.breakthecycle.org
 - www.loveisnotabuse.com/web/guest
 - <http://www.thatsnotcool.com/>.

Advocates who engage in individualized or community prevention work may want to consider ways to implement SBS/other abuse topic prevention and awareness measures into their work with allied professionals. Advocates may need to work with program directors on planning and implementation.

Measures to promote prevention and awareness can include:

- Working with high school and middle school students, teachers and other staff to promote the learning of healthy relationships¹⁰
- Organizing mandatory training for child/daycare providers¹⁰
- Generating public service announcements¹⁰
- Organizing journalist/media provider training to incorporate prevention and awareness emphases into social change editorials or abuse story coverage
- Working with local businesses on policy development that addresses employee/employer behavior and business standards that prevent and address abuse
- Working with prenatal parent educators (e.g., childbirth education classes, doula support services or prenatal care provider check-ups) on ways to encourage healthy relationship-building with babies and young children

Domestic violence advocates can help parents identify a secure and loving support system for a child with TBI³⁶. See Appendix B, Additional Resources, at the end of the guide.

Advocates can also help brainstorm ideas about safe play and other ways to avoid re-injury.³⁶

Summary

Module IV participants understand prevalence, symptoms, behavioral and emotional changes, healing and support measures as they pertain to babies, older children and teens with TBI.

Reference List: Module IV

1. Brain Injury Association of America. (2011). Living with brain injury. Children. Pediatric brain injury. Incidence. Retrieved from <http://www.biausa.org/brain-injury-children.htm>.
2. Collins, Mickey, Ph.D. (October 15, 2010). Data based management of sports concussion: What are we learning? University of Pittsburgh Medical Center, UMPC Sports Concussion Program. Pennsylvania Medical Home Initiative. EPIC-IC Fall Conference lecture on traumatic brain injury. Harrisburg, PA.
3. Barton, Barbara PhD, MSW and Tepper, Mitchell, PhD, MPH. (2011).

Adolescence, brain injury and sexuality: Promoting sexual health. *Brain Injury and sexuality. Brain Injury Professional, vol. 7 (1), 20.*

4. Centers for Disease Control and Prevention. (n.d.). Heads up: Prevent shaken baby syndrome. *Injury Prevention & Control: Traumatic Brain Injury.* Retrieved from <http://www.cdc.gov/concussion/HeadsUp/sbs.html>.
5. Centers for Disease Control and Prevention. (n.d.). A journalist's guide to shaken baby syndrome: A preventable tragedy. Retrieved from http://www.cdc.gov/Concussion/pdf/SBS_Media_Guide_508_optimized-a.pdf
6. KidsHealth. (n.d.). Abusive head trauma. Shaken baby syndrome. The Nemours Foundation. Retrieved from <http://kidshealth.org/parent/medical/brain/shaken.html>.
7. Centers for Disease Control and Prevention. (n.d.). Heads up: Prevent shaken baby syndrome. *Injury prevention & control: Traumatic Brain Injury.* Retrieved from <http://www.cdc.gov/concussion/HeadsUp/sbs.html>.
8. KidsHealth. (n.d.). Abusive head trauma. Shaken baby syndrome. The Nemours Foundation. Retrieved from <http://kidshealth.org/parent/medical/brain/shaken.html>.
9. Centers for Disease Control and Prevention. (n.d.). A journalist's guide to shaken baby syndrome: A preventable tragedy. Retrieved from http://www.cdc.gov/Concussion/pdf/SBS_Media_Guide_508_optimized-a.pdf
10. National Shaken Baby Coalition. (n.d.). Prevention of SBS. Retrieved from <http://www.shakenbabycoalition.org/prevention.htm>.
11. Children's Hospital of Philadelphia. (2011). Head injury: What is a head injury? Health information. Retrieved from <http://www.chop.edu/healthinfo/head-injury.html>.
12. Conference on Traumatic Brain Injury. (October 15, 2010). EPIC-IC Fall Conference on Traumatic Brain Injury. Pennsylvania Medical Home Initiative. PowerPoint. Harrisburg, PA.
13. Zuckerbraun, Noel, MD, MPH. (October 15, 2010). Let's talk: Management of mild traumatic Brain injury (MTBI) or concussion. Lecture at EPIC-IC Fall Conference on Traumatic Brain Injury. UMPC Children's Hospital of Pittsburgh. Medical Home Initiative. Harrisburg, PA.
14. Children's Hospital of Philadelphia. (2011). Head injury: What is a head injury? Health information. Retrieved from <http://www.chop.edu/healthinfo/head-injury.html>.
15. Conference on Traumatic Brain Injury. (October 15, 2010). EPIC-IC Fall Conference on Traumatic Brain Injury. Pennsylvania Medical Home Initiative. PowerPoint. Harrisburg, PA.
16. Children's Hospital of Philadelphia. (2011). Head injury: What is a head injury? Health information. Retrieved from <http://www.chop.edu/healthinfo/head-injury.html>

[injury.html](#).

17. Lovell, M., Collins, Mickey, PhD., & Bradley, James, MD. (2004). Return to play following a sports-related concussion. *Clinics In Sports Medicine*, vol. 23, 431.
18. Children's Hospital of Philadelphia. (2011). Head injury: What is a head injury? Health information. Retrieved from <http://www.chop.edu/healthinfo/head-injury.html>.
19. Grady, Matthew, MD. (October 15, 2010). Concussion in the adolescent athlete: Office evaluation. EPIC-IC Fall Conference on Traumatic Brain Injury. Pennsylvania Medical Home Initiative. Harrisburg, PA.
20. Children's Hospital of Philadelphia. (2011). Head injury: What is a head injury? Health information. Retrieved from <http://www.chop.edu/healthinfo/head-injury.html>.
21. Kamen, Deborah S., MS and Stefani O'Dea, MA. (2011). Planning for neurobehavioral needs of individuals with brain injury: The state perspective. State support of individuals with TBI. *Brain Injury Professional*, vol 7(4), 8.
22. Zuckerbraun, Noel, MD, MPH. (October 15, 2010). Let's talk: Management of mild traumatic Brain injury (MTBI) or concussion. Lecture at EPIC-IC Fall Conference on Traumatic Brain Injury. UMPC Children's Hospital of Pittsburgh. Medical Home Initiative. Harrisburg, PA.
23. Conference on Traumatic Brain Injury. (October 15, 2010). EPIC-IC Fall Conference on Traumatic Brain Injury. Pennsylvania Medical Home Initiative. PowerPoint. Harrisburg, PA.
24. ImPACT. Retrieved from <http://www.impacttest.com/>.
25. Sports Concussion South Africa. CogState Sport. Retrieved from http://www.sportsconcussion.co.za/Pharos/Computerised_Testing.php.
26. Grady, Matthew, MD. (October 15, 2010). Concussion in the adolescent athlete: Office evaluation. EPIC-IC Fall Conference on Traumatic Brain Injury. Pennsylvania Medical Home Initiative. Harrisburg, PA.
27. Centers for Disease Control and Prevention. (n.d.). Understanding teen dating violence factsheet. Retrieved from http://www.cdc.gov/violenceprevention/pdf/TeenDatingViolence_2010-a.pdf.
28. National Coalition Against Domestic Violence. (n.d.). Dating violence factsheet. Retrieved from <http://www.sc.edu/healthycarolina/pdf/facstaffstu/safety/DatingViolenceFactSheet.pdf>.
29. Adams, Heidi L. and Williams, Lela R. (2010.). Advice from teens to teens about dating: Implications for healthy relationships. *Children and Youth Services Review*, vol. 33 (2), 2.
30. Livestrong. (2009). Autoerotic asphyxiation. Retrieved from <http://www.livestrong.com/article/14014-autoerotic-asphyxiation/>.

31. Barton, Barbara PhD, MSW and Tepper, Mitchell, PhD, MPH. (2011). Adolescence, brain injury and sexuality: Promoting sexual health. *Brain Injury and Sexuality. Brain Injury Professional, vol. 7 (1), 19.*
32. Barton, Barbara PhD, MSW and Tepper, Mitchell, PhD, MPH. (2011). Adolescence, brain injury and sexuality: Promoting sexual health. *Brain Injury and Sexuality. Brain Injury Professional, vol. 7 (1), 18, 19.*
33. Barton, Barbara PhD, MSW and Tepper, Mitchell, PhD, MPH. (2011). Adolescence, brain injury and sexuality: Promoting sexual health. *Brain Injury and Sexuality. Brain Injury Professional, vol. 7 (1), 18.*
34. Children's Hospital of Philadelphia. (2011). Head injury: What is a head injury? Health information. Retrieved from <http://www.chop.edu/healthinfo/head-injury.html>.
35. Conference on Traumatic Brain Injury. (October 15, 2010). EPIC-IC Fall Conference on Traumatic Brain Injury. Pennsylvania Medical Home Initiative. PowerPoint. Harrisburg, PA.
36. Children's Hospital of Philadelphia. (2011). Head injury: What is a head injury? Health information. Retrieved from <http://www.chop.edu/healthinfo/head-injury.html>.

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MODULE V – TBI AND DOMESTIC VIOLENCE SCREENING

Module V participants use screening guides and role play exercises to build domestic violence and TBI screening skills. Cultural competency exercises in the module help to strengthen advocate domestic violence and TBI screening skills.

**Brain Injury
Helpline for
information,
referrals and
resources:
866-412-4755**

TBI and Domestic Violence Screening

Before continuing with this module it is imperative to acknowledge that advocates:

- **Must not** diagnose someone with TBI
- **May** screen for the purpose of alerting a survivor to the possibility of TBI and the need for a possible assessment

Advocates may conduct a screening and make a referral:

- As an important step for the survivor in receiving proper diagnosis and treatment in order to begin healing from the physiological, personal and social impact of a TBI

Remember, the information provided throughout the curriculum is not meant for diagnostic purposes:

- Screening survivors and making appropriate referrals as needed for a possible TBI is an effective start to a chain of events that could lead to needed services and rehabilitation.

An appropriate screening by a medical or domestic violence service provider has potential to make the difference in whether or not a survivor receives proper:

- Medical assessment
- Referrals
- Rehabilitative opportunities

Because survivors with TBI may:

- Slur words
- Stumble when they walk
- Sleep a lot
- Lack comprehension

Sometimes survivors have several issues going on at once, including having to cope with compounding TBI symptoms.

- It is important not to assume such behaviors are due to drugs, alcohol use, or a mental health issue.

The Case for TBI Screening Among Domestic Violence Survivors

TBI increases the chance of life risks such as:

- Ongoing abuse
- Exploitation
- Joblessness
- Relationship issues
- Homelessness

An undiagnosed TBI for a domestic violence survivor compromises the chances of:

- Positive outcomes while receiving services through a domestic violence program
- Effective rehabilitation
- Fulfilling personal goals

Data reveals that women have a higher mortality rate and poorer outcome following TBI than men.¹

- TBI is found to be the most documented injury in the medical files of those murdered by abusers.²

Screening domestic violence survivors is important because some service providers may be unaware of the high risk for TBI among domestic violence survivors:³

- Service providers may not link psychodynamic issues and other challenges presented by survivors as signs of TBI³
- A survivor may not receive a proper referral and appropriate rehabilitation services³

Research suggests that domestic violence survivors are at increased risk of a co-occurring TBI.⁴

- Domestic violence survivors are a population in need of consistent and intentional screening and referrals since the treatment of any brain injury symptoms seems to diminish an adverse impact on treatment and rehabilitation outcome.⁵

Head Injury Emergencies

If a survivor approaches an advocate with what may be a Head Injury Emergency, the advocate can follow the program's emergency protocol.

Head Injury Emergency symptoms, which may surface over 3 days, can include:

- Unconsciousness⁶
- Sudden and severe headache⁶
- Convulsions⁶
- Vacant or dazed expression⁶
- Drowsiness or vomiting (connected to an obvious head injury or no apparent reason)⁶
- Loss of memory of the head injury⁶
- Bleeding from the ear or nose could indicate a fractured skull⁶
- Fractured or dislocated jaw⁶
- Clear fluid or blood coming from the ears, nose or mouth⁶
- Difficulty waking up⁶

Screening and Guideline Overview

The Pennsylvania Coalition Against Domestic Violence recommends using the currently adapted:

- HELPPS⁷TBI Screening Tool as a reference for screening all domestic violence program participants and medical patients at intake appointments
- TBI Screening Guidelines⁸, the Medical Screening Guide (MSG) and Domestic Violence Program Screening Guide (PSG) (within the module) as references for conversational screening during a counseling and advocacy session

The following screening guidelines are meant to be:

- Non-discriminatory
- Culturally competent
- Non-stressful
- Conducted within legal parameters
- Empathetic

Cultural Competency entails:

Working to understand one's own cultural beliefs around:

| | |
|---|--|
| Family structure and authority | Birthplace |
| Food | Sense of place/home |
| Religion and spirituality | Dis/abilities |
| Race | Communication |
| Heritage | Clothing/hair choices |
| Gender (male, female, intersex) | Hygiene |
| Socio/economic class | Power and control |
| Nationality | Relationships to animals |
| Language | Children/childraising |
| Age | Expressions of abuse |
| Sexual orientation/identity (lesbian, gay, bisexual, transgender, queer, questioning, pansexual and androgynous) | Medical preferences (holistic and/or technological/ pharmaceutical modalities) |

Also, cultural competency work includes:

- Challenging differences that may affect service provider decisions through unhelpful assumptions within a provider's cultural belief system (see list above)
- Recognizing that layers of abuse may seem complex due to cultural differences between some people offering medical care or domestic violence advocacy and some survivors in need of care⁹
- Recognizing that strong cultural competency skills will benefit service provision as advocates and survivors navigate an individual's circumstances
- Asking service providers to become comfortable with questions and accommodations that may conflict with their personal preferences, values and social training⁹
- Providing written materials and other accommodations, such as interpreters or translators, which are sensitive to cultural groups, sexualities and ubiquitous community languages
 - For translation or interpretation needs:
 - ✓ Do not ask possible abusers
 - ✓ Try not to ask family members
 - ✓ If possible, avoid asking a child to translate or interpret
- Providing Braille materials¹⁰ and other supports for persons with limited or no vision
- Providing interpreters, signers and equipment for those who identify as D/deaf/hard of hearing
- Collaborating with a community or hospital-based diversity caucus willing to provide feedback on the screenings, policies and procedures as they are relevant to serving the whole community
- Providing services that are based on community-identified needs

Medical and domestic violence advocates may find the need to conduct TBI screening in somewhat different ways.

- This module offers a section for medical service providers and domestic violence service providers
- Screening tools and guidelines differ due to differences in responsibilities between medical and domestic violence service providers

Medical service providers may screen for TBI while screening for domestic violence:

- At each phase of patient contact by someone trained in asking about domestic violence and TBI¹¹

The following two sections, I (medical screening) and II (program screening), contain:

- Sample A, PCADV's adaptation of the HELPPS Tool
 - Intended for intake assessments with health care providers or advocates. The tool can be used after the questions have been integrated, with supervisor permission, into screening protocol at the time of intake.
- Sample B
 - Intended for conducting an in-depth conversational screening. The guidelines are to be used during a time when an advocate and survivor sit together for a follow-up appointment, rather than an intake appointment.

PCADV recommends conducting both screenings for every survivor.

- HELPPS Tool at intake
- Conversational screening tool at follow-up appointment

I. Screening For TBI In Medical Settings

The following section is intended for use by medical advocates and/or training of medical intake staff or counselors and social workers on the use of two domestic violence screening tools.

- How the forms are stored when implemented by hospital staff will depend on hospital policy.
- Medical advocates can work with a survivor on safe keeping or destroying the documents.

Domestic violence screening tools approved for use by hospitals are protected by the Health Insurance Portability and Accountability Act of 1996 (“HIPAA”).

Tips on using the screening tools:

- Sample A, the HELPPS tool, is a brief tool intended as a gateway TBI assessment to be used during an intake interview.
- If appropriate and possible, reserve the in-depth screening Sample B, called the Medical Screening Guide (MSG), for a time when a medical advocate/ counselor/ social worker will have more time allotted to offer personal attention during and after the screening.
- Medical advocates and other medical service providers can strive to cultivate positive and cooperative working relationships in order to generate best practices for serving survivors who live with TBI.
- If a survivor discloses TBI that is not associated with the incident that brought her to the medical location, follow the screening outline and discuss medical follow-up possibilities.

Sample A: The HELPPS TBI Medical Screening Tool

PCADV Adaptation 2011*

The HELPPS TBI Medical Screening Tool is intended for use by medical service providers and advocates during an intake interview.

The Joint Commission (TJC) requires healthcare locations to have the following domestic violence policies and procedures in place:¹²

- Identification¹²
- Intervention¹²
- Referral¹²

Encourage medical administrators and other providers to have a clear policy and protocol routine at intake and with each practitioner visit regarding TBI screening.¹³

- Encourage medical providers to have a coordinated community response team comprised of multidisciplinary players from the hospital, rehabilitation providers, and a domestic violence medical advocacy project.¹⁴
- It is beneficial for medical advocates to have a positive relationship with hospital and other medical department supervisors, management and line staff to increase comfort and support with introducing and sustaining TBI screening techniques.
- Engage service providers who have experience or interest in screening for TBI and who may be willing to be a point of contact for their shift team regarding TBI and domestic violence screening questions.¹⁵
- Upon hospital approval, intake providers may be trained to integrate the updated HELPPS Tool into the domestic violence screening.

***Adapted from the screening tool developed by the Alabama Head Injury Council, see note 15.**

THE HELPPS TOOL

(Adapted from the International Center for the Disabled 1992.)

| Question | Yes | No | Comments |
|--|-----|----|----------|
| <p>H = Was your head ever hit, jarred, or slammed?</p> <p>Were you ever injured in the head or neck area, including being bruised, strangled, suffocated, nearly drowned or having bones broken?</p> | | | |
| <p>E = Have you ever gone to an Emergency Room or sought medical attention due to an action from another person, including an intimate partner or relative?</p> <p>How long ago? How often did you go?</p> <p>Have you ever felt that you needed such attention but did not seek it out?</p> | | | |
| <p>L = Did you ever lose consciousness?</p> <p>For how long? How long ago? For what reason?</p> | | | |
| <p>P = Do you have any problems in the head or neck area?</p> <p>If so, do you know why?</p> | | | |
| <p>P = Are you or could you be pregnant?</p> | | | |
| <p>S = Have you noticed any outstanding symptoms after an injury to your head or neck area?</p> | | | |



Advocacy Tip: Upon interviewing a patient, the final question, "S," is not necessary if the patient answered negative to the first five questions.

Funded by Pennsylvania Dept. of Health and the US Dept. of Health and Human Services, grant #H21MC17232

Sample B: TBI Medical Screening Guideline (MSG)

PCADV Adaptation 2011

Sample B, The TBI Medical Screening Guideline (MSG), is intended for use in a medical appointment setting:

- During a medical advocacy session
- After domestic violence has been disclosed at intake

After domestic violence disclosure at the hospital intake:

- A survivor is usually asked if she would like to meet with a medical advocate

Confidentiality must remain a priority.

- Intake providers can be made aware that survivors must sign a “release of information” form to share their domestic violence assessment information with a medical advocate
- In turn, medical advocates can ask intake providers to inquire about written permission from the survivor to share the domestic violence screening information with a medical advocate, including the HELPPS Tool answers
- As a result, a medical advocate will have concrete information to guide the screening conversation during the advocacy and counseling session

Medical advocates must remember:

- The screening guidelines are not for the purpose of making any medical diagnoses.
- A survivor may refuse to answer the screening questions and/or may bypass making or attending any medical appointment.
- Program staff may not set conditions on the delivery of domestic violence services based on a survivor’s refusal to participate in a TBI screening or go for further medical assessment.

SAMPLE B: MEDICAL SCREENING GUIDELINES (MSG)

To help alleviate possible subjective barriers in screening for abuse, service providers should initiate:

A **conversation** that allows the survivor and advocate to discuss the survivor's abuse experiences, keeping differences of families, religions and cultures in mind.

How to initiate and continue a conversational screening is explained below.

Having a Conversation

To conduct a conversational Traumatic Brain Injury screening with someone who has disclosed abuse, medical advocates may choose to first initiate a conversation beginning with informing the survivor about confidentiality, and clarifying the exception of child abuse disclosure and mandatory reporting.

Ask about and address any questions or concerns. Then, begin with the usual pleasantries:

*Please sit down and make yourself comfortable.
How are you doing?*

Continue the conversation by asking the survivor about facts that someone without a brain injury would easily remember:

*Have you eaten today? Are you hungry?
What did you have to eat?
Are you thirsty? Did you have much to drink today?*



Advocacy Tip: The above questions may tell the advocate if the survivor's blood sugar is low or if she is dehydrated. Low blood sugar or dehydration may influence the manner in which someone answers questions. Provide a snack and water to help prevent such factors that may cause interference during the conversation.

*Do you have any children?
How about pets?
What are their names?
How are they cared for while you are here?*

Continue to let the conversation naturally unfold, responding to the survivor's answers. The questions should not be asked as though you are using a checklist.

*Let's talk about your day for a minute...
How did you come to need medical care today?
Who brought you to the hospital?
Can you tell me who you spent time with today?*

As the survivor and advocate become acquainted:

*What happened before you came to the hospital?
What was going on before the incident with your boyfriend/ girlfriend/ partner/
family member?*



Advocacy Tip: Be sensitive to how someone identifies an abuser; the person facilitating the screening should refer to an abuser in the same way a survivor refers to an abuser.

If a medical advocate has obtained permission to reference the survivor's HELPPS Tool answers from the intake provider, she can reference those answers as she continues talking more specifically about the abuse.

*At the medical intake a bit ago, you said...
Can you tell me about that situation?*

If an advocate does not have the completed HELPPS Tool copy from the intake provider in hand, she can continue **conversationally** with the questions below. (Screeners will notice that some of the questions are directly from the original HELPS tool.)

Let's talk about things that have gone on or may be going on in your life. In remembering times with a [boyfriend, girlfriend, date, relative, or caregiver], were you ever:

*Hit on the head, mouth, or other places on your face?
Pushed so hard you fell and hit your head on a hard or firm surface?
Shaken or jarred in any way?
Injured in the head or neck area, including strangled/choked or suffocated.
Restricted in your breathing?
Nearly drowned, electrocuted, or purposely given something you are allergic to?*



Advocacy Tip: PCADV recommends that advocates avoid discussing perceived differences between choking and strangulation when engaging in this screening conversation. Such a discussion may distract the survivor and cause the disclosure part of the process to be compromised due to semantics. If a survivor discloses being "choked," simply ask how they were "choked" and about the circumstances which followed.

Continue referencing the following questions through your conversation:

*Have you ever gone to an emergency room or sought medical attention because of something a boyfriend, girlfriend, relative, or caregiver did to you?
Have you ever felt that you needed medical attention, but did not get it or were prevented from getting it?*

(If yes)

Will you share why you did not get medical care?

Have you ever been told you had a concussion or other type of head or brain injury?

Did you ever have a time when you lost consciousness or blacked out?

Do you remember for how long or the reason?

Do you have any problems in the head or neck area? If so, do you know why?

If the survivor discloses a head, neck or brain injury, ask:

You mentioned an injury to your [head, neck, brain]; do you have any problems since your injury(ies)?

Allow the person time to consider, listen carefully and circle symptoms below from the answer. When the survivor is finished considering the answer, ask about symptoms not mentioned by the survivor.

Since the incident(s), do you experience:

| | |
|--|--|
| Headaches | Depression |
| Anxiety | Sore throat |
| Fatigue | Petechiae |
| Difficulty concentrating | Swollen tongue |
| Difficulty remembering | Bodily function loss |
| Difficulty reading, writing or calculating | Pupil dilation |
| Difficulty performing job or school work | Broken collarbone |
| Changes in behavior or attitude | Difficulty completing things |
| Changes in relationships | Difficulty in usual activities |
| Difficulty solving problems | Uncontrollable mood changes |
| Changes in vision, hearing, smelling or tasting | Difficulty managing stress |
| Breathing difficulties | Comments or criticism that "you've changed" |
| Dizziness | Drowsiness |
| Problems with balance | |

If a survivor discloses symptoms that may indicate TBI and the medical service providers have not considered TBI:

- Have a gentle conversation about your concerns with the survivor
- Obtain permission to discuss your concerns with a nurse

If disclosure happens in continued counseling beyond the initial medical visit:

- Gently review your concern about her symptoms
- Suggest that next time the survivor visits a health care provider, that she bring her symptoms to that provider's attention and find out how to be screened further, or see Appendix B: Additional Resources.

II. Screening For TBI In Domestic Violence Programs

The following screening tools are intended for use by domestic violence advocates in a shelter or counseling program environment. The screening forms ultimately belong to the survivor.

- Once the screening is completed, advocates should ask whether or not the survivor would like to keep the screening tool.
- If she decides to keep the tool, an additional conversation should take place about safekeeping of the document and any risks associated with having the tool in her possession.
- If the survivor opts not to keep the tool, the advocate can immediately shred the document.

Tips on using the screening tools:

- HELPPS is a brief tool intended for use by domestic violence advocates during an intake interview.
- If appropriate and possible, reserve the in-depth screening, called the Domestic Violence Program Screening Guide (PSG), to be conducted by an advocate who will have more time and personal attention during and after the initial intake appointment.
- If a domestic violence program has a medical advocacy component, medical and domestic violence program advocates can strive to cultivate positive and cooperative working relationships in order to generate best practices for serving survivors who live with TBI.
- If a survivor discloses TBI not associated with the incident that brought her to the domestic violence program location, continue to follow the screening outline and discuss the possibility of medical follow-up.

Sample A: The HELPPS TBI Domestic Violence Program Screening Tool¹⁶ PCADV Adaptation 2011

Domestic violence programs should have:

- A clear policy and protocol at an intake appointment protecting the confidentiality of information contained in the TBI screening
- An informed, signed and time-limited specific release from the survivor prior to the advocate discussing the results of the screening, including any conclusions or observations related to the survivor and TBI, with external service providers
- A disclaimer that a TBI screening process does not guarantee medical intervention or treatment for survivors who may suffer from TBI complications and are staying in a shelter or utilizing program services
- A disclaimer should state domestic violence shelters or programs will not be held liable if complications arise and cause harm to the survivor
- A disclaimer that the screening process is meant only to initiate a conversation about the survivor deciding on her own if she needs medical care, and to provide better advocacy services for the survivor

If a survivor discloses abuse at the intake appointment, ask her if she thinks she needs immediate medical attention. If so, offer to call an ambulance or cab for her to receive immediate medical care.

THE HELPPS TOOL

(Adapted from the International Center for the Disabled 1992.)

| Question | Yes | No | Comments |
|--|-----|----|----------|
| <p>H = Was your head ever hit, jarred, or slammed?</p> <p>Were you ever injured in the head or neck area, including being bruised, strangled, suffocated, nearly drowned or having bones broken?</p> | | | |
| <p>E = Have you ever gone to an Emergency Room or sought medical attention due to an action from another person, including an intimate partner or relative?</p> <p>How long ago? How often did you go?</p> <p>Have you ever felt that you needed such attention but did not seek it out?</p> | | | |
| <p>L = Did you ever lose consciousness?</p> <p>For how long? How long ago? For what reason?</p> | | | |
| <p>P = Do you have any problems in the head or neck area?</p> <p>If so, do you know why?</p> | | | |
| <p>P = Are you or could you be pregnant?</p> | | | |
| <p>S = Have you noticed any outstanding symptoms after an injury to your head or neck area?</p> | | | |



Advocacy Tip: Upon interviewing a survivor, the final question, "S," is not necessary if the person answered negative to the first five questions



The document must be offered to the survivor (if it is safe for her to take it) or immediately shredded after the screening

Funded by Pennsylvania Dept. of Health and the US Dept. of Health and Human Services, grant #H21MC17232

Sample B: TBI Domestic Violence Program Screening Guideline (PSG)¹⁷

PCADV Adaptation 2011*

Sample B, The Domestic Violence Program Screening Guideline (PSG) is intended for use:

- In a conversational format by domestic violence program advocates
- In a program setting
- During a counseling or advocacy session, once the survivor is determined to be safe or has entered shelter

Engaging in a TBI screening conversation during a counseling or advocacy session allows a service provider to:

- Help a survivor consider symptoms possibly associated with TBI
- Refer for a follow up medical appointment, if needed

The tool is to be used as a way to:

- Review a survivor's abuse history to listen for symptoms that may be associated with TBI
- Help the survivor decide if she may benefit from medical attention and rehabilitation

After the conversational TBI screening, the survivor may:

- Feel that immediate medical attention is not needed, but opt to be observed by others and see how she feels for a week or so and, in particular, the first 36 hours post-incident

Ask the survivor if she is agreeable to her situation being shared with:

- Other shelter advocates and line staff to be made aware of what may be transpiring if symptoms surface over the next few days, as there can be swelling and hemorrhage for a time post-incident

Having secured a survivor's permission, the program can:

- Identify procedures to indicate a person has reported events that can result in symptoms associated with TBI
- Non-invasively but closely observe the resident over the next week

***Adapted from the screening tool developed by the Alabama Head Injury Council, see note 15.**

Domestic violence program advocates must remember that the screening guidelines are not for the purpose of making any medical diagnoses. A survivor retains the legal right to refuse to answer the screening questions and/or bypass making or attending any medical appointment.

To help alleviate possible subjective barriers in screening for abuse, advocates should initiate:

A **conversation** that allows the survivor and advocate to discuss the survivor's abuse experiences, keeping differences of families, religions and cultures in mind.

Having a Conversation

To conduct a conversational TBI screening with a program participant, advocates may choose to first initiate a conversation beginning with informing the survivor about counselor and advocate confidentiality, and clarifying the exception of child abuse disclosure and mandatory reporting.

Ask about and address any questions or concerns. Then, begin with the usual pleasantries:

Please sit down and make yourself comfortable.

How are you doing?

Continue the conversation by asking the survivor about facts that someone without a brain injury would easily remember:

Have you eaten today? Are you hungry?

What did you have to eat?

Are you thirsty? Did you have much to drink today?



Advocacy Tip: The above questions may tell the advocate if the survivor's blood sugar is low or if she is dehydrated. Low blood sugar or dehydration may influence the manner in which someone answers questions. Provide a snack and water to help prevent such factors that may cause interference during the conversation].

Do you have any children?

How about pets?

What are their names?

How are they cared for while you are here?

Continue to let the conversation naturally unfold, responding to the survivor's answers. The questions should not be asked as though you are using a checklist.

Let's talk about your day for a minute...

How did you come here today?

Who brought you here?

Can you tell me who you spent time with today?

As the client and advocate become acquainted:

What happened before you came to the program?

What was going on before the incident with your boyfriend/ girlfriend/ partner/ family member?



Advocacy Tip: Be sensitive to how someone identifies an abuser; the person facilitating the screening should reference an abuser in the same way a survivor references an abuser.

Advocates can become familiar with the HELPPS Tool answers noted by the intake provider and reference the answers as she continues talking more specifically about the abuse.

When you met with [name] during your intake, you said...

Can you tell me about that situation?

If an advocate does not have a completed HELPPS Tool copy from the intake provider in hand, she can continue **conversationally** with the questions below¹⁸.

Let's talk about things that have gone on or may be going on in your life. In remembering times with a boyfriend, girlfriend, date, relative, or caregiver, were you ever:

Hit on the head, mouth or other places on your face?

Pushed so hard you fell and hit your head on a hard or firm surface?

Shaken or jarred in any way?

Injured in the head or neck area, including strangled/choked or suffocated.

Restricted in your breathing?

Nearly drowned, electrocuted, or purposely given something you are allergic to?



Advocacy Tip: PCADV recommends that advocates avoid discussing perceived differences between choking and strangulation when engaging in this screening conversation. Such a discussion may distract the survivor and cause the disclosure part of the process to be compromised due to semantics. If a survivor discloses being "choked," simply ask how they were "choked" and about the circumstances that followed.

Continue referencing the following questions through your conversation:

Have you ever gone to an emergency room or sought medical attention because of something a boyfriend, girlfriend, relative, or caregiver did to you?

Have you ever felt that you needed medical attention, but did not get it or were prevented from getting it?

(If yes)

Will you share why you did not get medical care?

Have you ever been told you had a concussion or other type of head or brain injury?

Did you ever have a time when you lost consciousness or blacked out?

Do you remember for how long or the reason?

Do you have any problems in the head or neck area? If so, do you know why?

If the survivor discloses a head, neck or brain injury, ask:

You mentioned an injury to your [head, neck, brain]; do you have any problems since your injury(ies)?

Allow the person time to consider, listen carefully and circle symptoms below from their answer. When the survivor is finished considering their answer, ask about symptoms not mentioned by the survivor.

Since the incident(s), do you experience:

Headaches

Anxiety

Fatigue

Difficulty concentrating

Difficulty remembering

Difficulty reading, writing, or calculating

Difficulty performing job or school work

Changes in behavior or attitude

Changes in relationships

Difficulty solving problems

Changes in vision, hearing, smelling
or tasting

Breathing difficulties

Dizziness

Problems with balance

Depression

Sore throat

Petechiae

Swollen tongue

Bodily function loss

Pupil dilation

Broken collarbone

Difficulty completing things

Difficulty in usual activities

Uncontrollable mood changes

Difficulty managing stress

Comments or criticism that
“you’ve changed”

Drowsiness

If a domestic violence advocate is concerned about possible TBI:

- Have a gentle conversation about your concerns with the survivor.
- Suggest that next time she sees a doctor that she brings her symptoms to their attention and find out how to be screened further, or see Appendix B, Additional Resources

Summary

Module V participants learn why it is important to screen and how to screen for TBI among domestic violence survivors and medical patients who are possibly domestic violence survivors.

Reference List: Module V

1. Wilson, Sharon. R. (2009). Traumatic brain injury and intimate partner violence in Connie Mitchell's *Intimate partner violence: A Health based Perspective*. 185. Oxford University Press, Inc., New York: NY.
2. Conference on Traumatic Brain Injury. (October 15, 2010). EPIC-IC Fall Conference on Traumatic Brain Injury. Pennsylvania Medical Home Initiative. PowerPoint. Harrisburg, PA.
3. Hibbard, Mary R., (1999). Linking domestic violence and traumatic brain injury. (n.d.). Maternal and Child Health Bureau. Alabama Department of Rehabilitation Services. United States Department of Health and Human Services.
4. Corrigan, JD, et al., (2003). Linking domestic violence and traumatic brain injury. (n.d.). Maternal and Child Health Bureau. Alabama Department of Rehabilitation Services. United States Department of Health and Human Services.
5. Brain Injury Resource Center. (1998). Head Injury Emergency. Retrieved from <http://www.headinjury.com/emergency.htm>.
6. Section A is PCADV's adaptation of the original HELPS Tool, a brief Traumatic Brain Injury screening guide created by Picard, Scarisbrick and Paluck in 1991 for The International Center for the Disabled in 1992. The tool was then adapted in 1996 by New York State Coalition Against Domestic Violence and reprinted with permission of the Empire Justice Center, Building Bridges: A Cross-Systems Training Manual for Domestic Violence Programs and Disability Service Providers in New York (2006); this version can be found at http://vawnet.org/Assoc_Files_VAWnet/HELPScreeningTool.pdf. Section B outlines suggestions on how to conduct a thorough Traumatic Brain Injury Screening for domestic violence program medical advocates.
7. More guideline adaptations: http://vawnet.org/Assoc_Files_VAWnet/HELPScreeningTool.pdf.
8. Warshaw, C., and Ganley, Anne L. (1996). Establishing an appropriate response to domestic violence in your practice, institution and community. *Improving Healthcare Response to Domestic Violence: A Resource Manual for Healthcare*

- Providers*. 110.
9. Warshaw, C., and Ganley, Anne L. (1996). Establishing an appropriate response to domestic violence in your practice, institution and community. *Improving Healthcare Response to Domestic Violence: A Resource Manual for Healthcare Providers*. 125.
 10. Warshaw, C., and Ganley, Anne L. (1996.). Establishing an appropriate response to domestic violence in your practice, institution and community. *Improving Healthcare Response to Domestic Violence: A Resource Manual for Healthcare Providers*. 121.
 11. Warshaw, C., and Ganley, Anne L. (1996). Establishing an appropriate response to domestic violence in your practice, institution and community. *Improving Healthcare Response to Domestic Violence: A Resource Manual for Healthcare Providers*. 115.
 12. Warshaw, C., and Ganley, Anne L. (1996). Establishing an appropriate response to domestic violence in your practice, institution and community. *Improving Healthcare Response to Domestic Violence: A Resource Manual for Healthcare Providers*. 109, 112, 116, 117.
 13. Warshaw, C., and Ganley, Anne L. (1996). Establishing an appropriate response to domestic violence in your practice, institution and community. *Improving Healthcare Response to Domestic Violence: A Resource Manual for Healthcare Providers*. 109, 112.
 14. Warshaw, C., and Ganley, Anne L. (1996). Establishing an appropriate response to domestic violence in your practice, institution and community. *Improving Healthcare Response to Domestic Violence: A Resource Manual for Healthcare Providers*. 109.
 15. Section A is PCADV's adaptation of the original HELPS Tool, a brief Traumatic Brain Injury screening guide created by Picard, Scarisbrick and Paluck in 1991 for The International Center for the Disabled in 1992. It was then adapted in 1996 by New York State Coalition Against Domestic Violence and reprinted with permission of the Empire Justice Center, Building Bridges: A Cross-Systems Training Manual for Domestic Violence Programs and Disability Service Providers in New York (2006); this version can be found at http://vawnet.org/Assoc_Files_VAWnet/HELPScreeningTool.pdf. Section B outlines suggestions on how to conduct a thorough Traumatic Brain Injury Screening for domestic violence program medical advocates based on the Alabama Head Injury Foundation screening tool found at <http://www.rehab.state.al.us/Home/Services/VRS/TBI/Traumatic%20Brain%20Injury%20and%20Domestic%20Violence/Brief%20Screening%20-%20Checklist.pdf>.
 16. VAWnet TBI special collections link can be found at: <http://vawnet.org/special-collections/DVBrainInjury.php#402>.
 17. Note that some of the questions are directly from the original HELPS tool.

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**Traumatic Brain Injury
As a Result of Domestic Violence:
Information, Screening and Model Practices**

Participant's Guide

**Module VI – Advocacy for
Domestic Violence Survivors with TBI**



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Reference List: Module VI 16

MODULE VI – ADVOCACY FOR DOMESTIC VIOLENCE SURVIVORS WITH TBI

Module VI participants learn supportive ways to work with a survivor of domestic violence who has TBI. Participants address program expectations and barriers, and ways that advocates can help to facilitate positive change for program participants who live with TBI.

**Brain Injury
Helpline for
information,
referrals and
resources:
866-412-4755**

General Advocacy for Working With a Domestic Violence Survivor With TBI

“I feel chaos. I leave the dishes to be done later. I procrastinate....I make no time for completing my tasks. I watch cable television or daydream so I don’t have to deal with what I should be doing.”

TBI Survivor¹

Advocates may observe behaviors that reflect the experience explained in the above quote.

Empowerment-Based and Woman-Centered Survivor Advocacy

For most individuals in need of domestic violence services and TBI support, complexities exist that may pose challenges for:²

- The survivor²
- Domestic violence program and/or medical staff²

Personal warmth and individualized services are essential to empowerment-based advocacy.

- For the person with TBI, this type of approach is critical since she is already doubting herself in several ways and questioning her right to services

Advocacy for survivors of domestic violence who live with TBI should be based on the core principles of Women-Centered Survivor Advocacy:³

- Justice
- Autonomy
- Restoration
- Safety

Professional expertise and use of ‘up-to-date’ research methods are important for effective:

- TBI screening, diagnosis and healing

However, it tends to benefit survivors when domestic violence or medical service providers find ways to flatten a power dynamic that may otherwise, by the design of the relationship, create a barrier and/or exist between:

- Domestic violence program staff and program participants
- Medical providers and patients

Domestic violence survivors who may have TBI must be:

- Listened to actively
- Given space and time to express opinions
- Central to the decision-making process and ultimately make their own decisions

The following section on cultural competency is also printed in *Module V: TBI and Domestic Violence Screening Techniques*.

Advocates must understand the importance of cultural competency:

Cultural Competency entails:

Working to understand one’s own cultural beliefs around:

| | |
|---|--|
| Family structure and authority | Birthplace |
| Food | Sense of place/home |
| Religion and spirituality | Dis/abilities |
| Race | Communication |
| Heritage | Clothing/hair choices |
| Gender (male, female, intersex) | Hygiene |
| Socio/economic class | Power and control |
| Nationality | Relationships to animals |
| Language | Children/childraising |
| Age | Expressions of abuse |
| Sexual orientation/identity (lesbian, gay, bisexual, transgender, queer, questioning, pansexual and androgynous) | Medical preferences (holistic and/or technological/ pharmaceutical modalities) |

Also, cultural competency work includes:

- Challenging differences that may affect service provider decisions through unhelpful assumptions within a provider's cultural belief system
- Recognizing that layers of abuse may seem complex due to cultural differences between some people offering medical care or domestic violence advocacy and some survivors in need of care⁹
- Recognizing that strong cultural competency skills will benefit service provision as advocates and survivors navigate an individual's circumstances
- Asking service providers to become comfortable with questions and accommodations that may conflict with their personal preferences, values and social training⁹
- Providing written materials and other accommodations, such as interpreters or translators, which are sensitive to cultural groups, sexualities and ubiquitous community languages
 - For translation or interpretation needs:
 - ✓ Do not ask possible abusers
 - ✓ Try not to ask family members
 - ✓ Never ask a child to translate or interpret
- Providing Braille materials¹⁰ and other supports for persons with limited or no vision
- Providing interpreters, signers and equipment for those who identify as D/deaf/hard of hearing
- Collaborating with a community or hospital-based diversity caucus willing to provide feedback on the screenings, policies and procedures as they are relevant to serving the whole community
- Providing services that are based on community-identified needs

TBI and Life Changes

Domestic violence survivors have complex histories and, if TBI is part of that history, chances are good that the:

- TBI has significantly impacted a survivor's quality of life
- TBI has significantly impacted a survivor's ability to navigate complexities of daily living, work and her environment

As true for many survivors of domestic violence, those with TBI may have difficulty in their daily activities, including:

- Relaxation
- Job responsibilities
- Relationship quality⁴

Conditions that may make TBI harder to adjust to and lengthen healing time are:

- Anxiety⁴
- Depression⁴
- Pre-existing chronic headaches⁴
- Secondary injury⁵
- Substance abuse⁵
- Psychiatric conditions⁵
- Aging process⁵

Healing

Healing can depend on:

- The severity of the injury⁶
- The survivor's age⁶
- Health condition prior to the injury⁶
- How well a survivor is able to care for herself after the injury⁶
- Compounding brain injuries, since a survivor may experience healing with more ease the first time and decrease her ability to heal with multiple injuries⁶

People with positive, early healing may experience setbacks a year or decades after the incident.

- Service systems are generally inflexible with responding to such gaps in functional changes⁷
- Survivors of domestic violence and/or childhood abuse may exhibit symptoms from a recent or older injury

Proper management of a concussive injury has implications for a better or good prognosis and minimal deleterious effects with regard to brain function.⁸

Supporting Survivors With TBI

Domestic violence programs, including medical advocacy programs, may want to offer a support group for domestic violence survivors with TBI to help with difficulties that intersect:

- As a result of TBI
- As a result of domestic violence

Advocates should be prepared for:

- The possibility of heightened substance abuse and/ or a range of mental health symptoms when working with a domestic violence survivor with TBI

Advocates can be prepared by:

- Working with a person's behavior rather than labeling the person in unhelpful ways
- Having a list of other service providers who are adept at working with empowerment-based models and other resources
- Expecting to meet in abbreviated meeting times
- Speaking in a clear and literal sense
- Sequencing tasks in short increments with the survivor or prioritizing one task at a time
- Expecting to work with the survivor on filling out important forms or creating a resume

Advocates must become:

- Comfortable and proficient at working with survivors who live with TBI

TBI and the Medical Care Experience



Advocacy Tip: Any advocate should be mindful of what survivors may experience or encounter in medical settings.

A survivor's right to self determine needs and wants can get undermined by processes and procedures in medical settings.

- Advocates can work with survivors to help them understand helpful questions to ask before and during procedures, refuse certain procedures, and select which sections of the consent forms are agreeable or not agreeable to the survivor.

Medical locations, such as hospital emergency rooms, can be fast paced for anyone, yet more so for someone with TBI. Overstimulation can be distracting or painful for someone with TBI.

Medical professionals can accommodate TBI survivors by:

- Slowing down the pace and speaking clearly to encourage a non-threatening experience
- Explaining what procedures they are doing and why in basic terms
- Being aware of cues that the survivor is not understanding or is being traumatically re-triggered by a procedure
- Having soft lighting in the room or offering to dim the lights
- Offering to close the door to minimize noise
- Turning off the computer or covering the computer monitor to minimize distraction or pain caused by screen lights or movement

Sexual Assault and TBI

Sexual assault may intersect with TBI for some survivors.

If a program is not a DV/SV dual center, if sexual assault advocacy is not available, or there is no referral agreement with the community sexual assault center, advocates working with survivors will want to be aware of the following information.

Advocates can help to better prepare survivors for a sexual assault examination by:

- Explaining the general process of sexual assault evidence collection beforehand, if there is an opportunity
- Remind survivors to ask the nurse or doctor to explain anything in the process that is uncomfortable or anything on the consent form that is unclear
- Look for signs that a survivor does not understand the contents of the Sexual Assault Medical Consent Form, and if necessary, remind the survivor to ask a medical professional for further clarification



Advocacy Tip: An advocate's role can include talking with a survivor about the right to ask questions before and during procedures, refuse certain procedures, and select which sections of the consent forms are agreeable or not agreeable to the survivor.

TBI and the Domestic Violence Program Experience

The domestic violence program experience is a time when survivors are offered services, including shelter, as an opportunity to consider ways to renew and restructure their lives.

- TBI may compound difficulties in someone's daily life and affect her program experience, especially if the injury is and remains undiagnosed and untreated

Remember, of survivors who come to a program for services:

- Some will have a TBI diagnosis and some will not
- Some will consent to medical screening and a follow up appointment upon a positive screening, while some will not

Do not assume that:

- Someone without a brain injury diagnosis does not have TBI
- Every survivor you will work with has TBI



Reminder: Pennsylvania domestic violence shelters have rules and expectations that should be clearly explained at the time of intake. A supportive or non-supportive manner in which they may be conveyed can have a significant impact on survivors with TBI.

Program rules and expectations may include:

- Find a home or keep a home
- Find a job or keep a current job
- Care for children with patience and kindness
- Attend mandatory meetings and support groups
- Follow through daily with assigned chores
- Work and live without conflict with other program participants and shelter staff
- Safeguard confidentiality for herself and other program participants
- Respect confidentiality about a program's location
- Do not bring abusers, alcohol, drugs or weapons onto shelter property

Pennsylvania domestic violence advocates often discuss options that may help a survivor achieve her goals otherwise. Those include:

- Apply for benefits
- Apply for transitional housing
- Consider legal options
- Advance educational level
- Find reliable childcare



Advocacy Tip: A survivor with TBI will likely need more focused and deliberate help (than a survivor without TBI) from an advocate to achieve additional goals.

Research shows that 74% – 77% of domestic violence survivors were found to have symptoms consistent with TBI.¹⁰

Those with TBI may have difficulty understanding risky situations or avoiding risky persons.¹¹

Individuals who have sustained a TBI may be at an increased risk for violent behavior.¹²

People with TBI may have problems with impulse control, and may be irritable, anxious or depressed.¹³

The Centers for Disease Control and Prevention estimates that at least 3.17 million Americans currently have a long-term or lifelong need for help to perform activities of daily living as a result of a TBI.¹⁴

According to one study, about 40% of those hospitalized with a TBI had at least one unmet need for services one year after their injury.¹⁴

The most frequent unmet needs of someone living with TBI were:

- Improving memory and problem solving¹⁴
- Managing stress and emotional upsets¹⁴
- Controlling one's temper¹⁴
- Improving one's job skills¹⁴
- Rehabilitation with sexual functioning and understanding sexual rights¹⁵

Advocating for Survivors with TBI

How may an advocate effectively work with someone who lives with TBI?

*While the recommendations below are specifically noted for those who suffer from concussions, a form of TBI, we have listed them here as useful guidelines for any type of TBI healing.

Healing = Rest, Time, Fluids.

Someone with TBI...

May be frustrated with not being able to “do what she used to do.”

Advocates can:

- Work with her in moving forward with her interests and meeting her needs
- Partner with her in doing chores and filling out important forms

May exhibit TBI symptoms or have needs beyond a program’s resources. (I think this section is missing from the PG)

Advocates can:

- Screen for TBI at the time of intake to initially assess if support and referrals may be wanted or needed
- Screen for TBI through conversational questions about head injuries in advocacy meetings to understand how to provide support and referrals if wanted or needed
- Discuss ways to tailor working with the survivor to meet that person’s needs if symptoms leave the survivor with minor or major setbacks with meeting her needs or living in shelter
- Work with the survivor on moving to a TBI rehabilitation program, while maintaining safe residence at the domestic violence program, until a move can happen if the shelter cannot accommodate her needs due to severe symptoms
 - See Appendix B at the end of the manual for possible leads or call the Brain Injury Helpline for information, referrals and resources: 1-866-412-4755

May feel depressed or fatigued due to a TBI and/or abuse.²¹

Advocates can:

- Remind her of her personal strengths, which depressed people tend to forget
- Be realistic about how much, or how little, she may be able to do in a given day²¹
- Celebrate her for who she is and help her to celebrate herself

Should try to manage stress in order to support mental, emotional and physical health.

Advocates can:

- Encourage rest.
- Suggest a diet of fresh and/or other wholesome foods.

- Listen to hear if she is interested in natural ways to support overall wellness. These may include:
 - Yoga videos or classes, rented or donated
 - Meditation videos or classes, rented or donated
 - Massage through donated services or local schools
 - Use of reflexology charts through books or the Internet
 - Herbal remedies donated or purchased from most any store with a pharmacy or health food section
 - Acupuncture referral

If a survivor is interested, but does not have access to such resources, advocates can offer to help her find accessible and affordable means to carry through with her interests.

Should get plenty of sleep at night and rest during the day.²²

Advocates can:

- Request quiet time in shelter past 10:00 pm
- Designate quiet spaces in the shelter which residents can feel free to use
- Not pressure the resident to be 'up and productive' by a certain time of day

Should eat healthy foods.²²

Advocates can:

- Initiate and work with interested survivors to maintain a resident garden to supplement meals
- Make sure fresh fruits and vegetables and other whole food choices are largely available in the shelter kitchen, as "nutrients may be the only way to go in the actual treatment of memory and other cognitive function deficits"²³

Should avoid physically demanding activities, including working out and housecleaning.²⁴

Advocates can:

- Offer exemptions from chores during the healing period
- Encourage and validate the need for rest
- Make sure the resident has adequate transportation to appointments and other necessary locations if needed, rather than having to rely on walking or bike riding to destinations, as preserving energy for healing is necessary

Should avoid too much concentration, including sustained computer use.²⁴

Advocates can:

- Suggest a break from attending classes, job training or housing searches
- Suggest a break from anything that involves substantial paper work or computer time
- Offer to assist the survivor in reviewing written materials or completing forms

Should avoid driving or operating heavy equipment.²⁴

Advocates can:

- Suggest the survivor ask a health care professional when it is safe to drive a car, ride a bike, or use heavy equipment because the ability to react may be slower after a TBI²⁵
- Suggest the survivor return to work when ready and inquire about low stress activities or working half-days until a full-recovery²⁶

Should not rush back to daily activities such as school or work.²⁷

Advocates can:

- Suggest the survivor talk with a health care professional about when to return to work or school²⁸
- Suggest she investigate whether or not she is getting the benefits at work to which she is entitled²⁹
- Assist the survivor in getting documentation she may need to request accommodations at school or work
- If returning to work or school does not seem like an option, an advocate can begin to work with the survivor to explore other options such as a different occupation, applying for disability benefits, applying for Crime Victims Compensation, or legal representation to learn how to possibly retrieve compensation due to the abuse

Should not drink alcohol or take drugs, other than those doctor prescribed, since these substances can slow recovery.³⁰

Advocates can:

- Suggest the survivor refrain from drug and alcohol use
- Offer information on a drug and alcohol support group, if appropriate
- Brainstorm ways the survivor can draw upon an advocate's support to avoid drugs and alcohol

May need extra support in a participating in legal proceedings such as a child custody hearing, criminal court case,³¹ bringing criminal charges against an abuser, or obtaining a Protection From Abuse Order.

Advocates can:

- If needed, ARRANGE court accompaniment providers who understand connections between domestic violence and TBI for upcoming court dates
- Connect the survivor with an attorney who understands domestic violence and is able to connect TBI to her abuse experience
- Assure legal support persons and possible expert witnesses are informed about the intersections of domestic violence and TBI

May have problems with memory or organization:

Advocates can:

- Give her a date book, planner, or post-it notes for writing down things that may be difficult to remember such as appointments or chores³²
- Suggest doing one activity at a time³³
- Help her prioritize responsibilities
- Remind her of advocacy appointments in person or through a phone call the day of your scheduled meeting
- Suggest she avoid doing anything that could cause a bump, blow or jolt to the head or body³⁴

May have problems following or remembering medical or rehabilitative instructions:

Advocates can:

- Suggest she keep copies of doctor's papers, hospital discharge instructions, and rehabilitation notes in an easily accessible or visible location³⁵
- Suggest she take notes during important conversations with doctors and other service providers – The notes should include location and date of the meeting, person she spoke with, points of discussion, agreements, disagreements, conclusions, a time-line and follow-up plan³⁶
- Assist her in getting a document organizer
- Work with her to find a safe place to keep important documents

May have problems with changes in sexual urges, behaviors or boundaries:

Advocates can:

- Become comfortable with discussing sexuality with survivors; acknowledge or ask if such concerns exist, rather than ignore the topic as an issue for people with TBI
- Understand that expression and communication may be barriers for people with TBI³⁷. Keep an open dialogue about sexual boundaries and healthy relationships – this type of approach will help to build communication skills and empower a survivor struggling sexual issues
- Support a survivor who is in a rehabilitation program to speak to her service provider/ team about addressing any sexual problems³⁸ or changes
- Support a survivor in speaking with her doctor about pharmaceutical side effects that may affect sexual functioning³⁹
- Discuss ways to plan for possible sexual encounters with regard to safety, contraception and the right to say, 'no'⁴⁰



Advocacy Tip: Navigating sexuality is important to reframing self-identity after TBI.⁴¹

May need to consult with family members or friends when making important decisions.⁴²

Advocates can:

- Suggest that the family members or friends should be designated, informed and trusted:
- Designated by the survivor
- Informed on the extent and need for decision-making support in order to provide on-going discussions and follow-through for the survivors decisions
- Trusted because some friends and family cannot be assumed as committed to the survivor's confidentiality, as they may disclose information that may put the survivor at further risk

If the survivor resides in a shelter, and does not have access to trusted family or friends, her domestic violence advocate may be a good choice as a trusted person to help with important decisions. The advocate can work with her to identify other trusted persons who can provide support once she leaves the program.

Should maintain contact with appropriate medical and/ or rehabilitative support

Advocates can:

- Suggest applying for government medical coverage to avoid dependency on the abuser for medical insurance or living without insurance
- Suggest communication between program participant and medical provider
- Assist her in locating and accessing rehabilitative and other support services, including assistive devices⁴³
- Give her contact information for the Brain Injury Association of Pennsylvania and the Brain Injury Association of America (See Appendix B)
- Give contact information for the CDC's "HeadsUp Brain Injury" Facebook page <http://www.facebook.com/cdcheadsup>
- Ask if she would like reminders such as notes, verbal reminders, or phone calls for upcoming appointments; remember to safety plan for these measures
- If it is safe for a survivor to take a reminder card, offer a Patient Reminder Card for every upcoming medical appointment

May need to protect her head from accidental re-injury.⁴³

Advocates can suggest:

- A regular schedule with a domestic violence advocate to discuss options and safety planning measures⁴³
- Removal of tripping hazards such as throw rugs⁴³
- Keeping hallways, stairs and doorways free of clutter⁴³
- Installing handrails on both sides of stairways⁴³
- Putting a nonslip mat in the bathtub or shower floor⁴³
- Installing grab bars next to the toilet and in the tub or shower⁴³
- Improving the lighting inside and outside her home⁴³
- Always wearing a helmet when bike riding, rollerblading, skiing, etc.⁴³

Disabilities accommodations are:

- Ethical
- Humanitarian
- Required under the Americans with Disabilities Act

Ask a survivor with TBI what you and other shelter staff can do to accommodate her.

Patient Reminder Cards

Advocates can make and distribute their own Patient Reminder Cards:

- These cards may be handed to survivors who plan to follow up for medical care for a head or neck injury.
- After discussing the domestic violence and TBI screening results, if a survivor agrees for a follow-up medical appointment, and it is established by the survivor that it is safe for her to carry a Patient Reminder Card, then a shelter or medical advocate hands the survivor a card for an examiner to complete. The survivor may carry the card as an appointment reminder.
- The card font should be large, bold and easy to read for accessibility. A domestic violence services reference is intentionally exempt from the card wording for safety purposes.
- Advocates can discuss with survivors if they are able to keep the card from an abuser, relatives or friends working on his behalf.

Patient Reminder Card Sample

| |
|--|
| <p>REMINDER CARD</p> <p>You have been examined at _____ for a head injury.</p> <p>Be sure to let a trusted family member or friend know about your injury. They may notice symptoms before you do and can help you.</p> <p>Take time off from work or school for _____ day(s) or until you and your doctor think you are able to return to your usual routine.</p> <p>Your next appointment with _____ is on _____.</p> |
|--|

Summary

Module VI participants learn supportive ways to work with a survivor of domestic violence who has TBI. Participants address program expectations, barriers to meeting program expectations, and ways that advocates can help to facilitate positive change for program participants who live with TBI.

Reference List: Module VI

1. Lorenz, L.S. (2010). Visual metaphors of living with brain injury: exploring and communicating lived experience with an invisible injury. Making visible the invisible: Using Photovoice to Understand Living With Brain Injury. *Visual Studies*, vol. 25, (3) 220.
2. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
3. Hibbard, Mary R. Ph.D. ABPP. (n.d.). Understanding traumatic brain injury. Alabama Department of Rehabilitation Services and the Alabama Head Injury Foundation. Mount Sinai School of Medicine. PowerPoint.
4. Centers for Disease Control and Prevention. (n.d.). Concussion: What can I do to feel better after a concussion? Retrieved from http://www.cdc.gov/concussion/feel_better.html.
5. Kamen, Deborah S., MS and Stefani O'Dea, MA. (2011). Planning for neurobehavioral needs of individuals with brain injury: The state perspective. State support of individuals with TBI. *Brain Injury Professional*, vol 7 (4), 9.
6. Centers for Disease Control and Prevention. (n.d.). Concussion: What can I do to feel better after a concussion? Retrieved from http://www.cdc.gov/concussion/feel_better.html.
7. Kamen, Deborah S., MS and Stefani O'Dea, MA. (2011). Planning for neurobehavioral needs of individuals with brain injury: The state perspective. State support of individuals with TBI. *Brain Injury Professional*, vol 7 (4), 9.
8. Lovell, M., Collins, Mickey, PhD., & Bradley, James, MD. (2004). Return to play following a sports-related concussion. *Clinics In Sports Medicine*, vol. 23, 422.
9. Koss (1997), Walker (1991) and Warshaw (1993). Linking domestic violence and traumatic brain injury. (n.d.). Maternal and Child Health Bureau. Alabama Department of Rehabilitation Services. United States Department of Health and Human Services.

10. Koss (1997), Walker (1991) and Warshaw (1993). Linking domestic violence and traumatic brain injury. (n.d.). Maternal and Child Health Bureau. Alabama Department of Rehabilitation Services. United States Department of Health and Human Services.
11. Centers for Disease Control and Prevention. (n.d.). Survivorization of persons with traumatic brain injury or other disabilities: A fact sheet for friends and families.
12. Bryon, Deborah (2010). Domestic aggression and traumatic brain injury. Retrieved from <http://www.4therapy.com/life-topics/family-relationships/domestic-violence/domestic-aggression-and-traumatic-brain-injury-25>.
13. Mayo Clinic. (2010). Traumatic brain injury: Complications. Retrieved from <http://www.mayoclinic.com/health/traumatic-brain-injury/DS00552/DSECTION=complications>.
14. BIAA. (n.d.). Facts about traumatic brain injury. About brain injury. Retrieved from <http://www.biausa.org/aboutbi.htm>.
15. Sander, Angelle. (2011). Integrating sexuality into traumatic brain injury rehabilitation. Brain injury and sexuality. *Brain Injury Professional*, vol. 7 (1), 11.
16. BIAA. (n.d.). Facts about traumatic brain injury. About brain injury. Retrieved from <http://www.biausa.org/aboutbi.htm>.
17. Centers for Disease Control and Prevention. (n.d.). Survivorization of persons with traumatic Brain injury or other disabilities: A fact sheet for friends and families.
18. BIAA. (n.d.). Facts about traumatic brain injury. About brain injury. Retrieved from <http://www.biausa.org/aboutbi.htm>.
19. Centers for Disease Control and Prevention. (n.d.). Survivorization of persons with traumatic Brain injury or other disabilities: A fact sheet for friends and families.
20. Brain Injury Resource Center. (1998). Denial's ugly head. Retrieved from <http://www.headinjury.com/denial.htm>.)
21. New York State Office for the Prevention of Domestic Violence. (2009). Safety planning for survivors with TBI.
22. Centers for Disease Control and Prevention. (n.d.). Concussion: What can I do to feel better after a concussion? Retrieved from http://www.cdc.gov/concussion/feel_better.html.
23. Brown, Robert, M.ED. (n.d.). Alternative therapies for the head injury survivor: Therapeutic herbs and supplemental Nutrients. About.com: Holistic healing. Retrieved from http://healing.about.com/od/diseasesandhealthissues/a/tbi_5.htm).

24. Centers for Disease Control and Prevention. (n.d.). Concussion: What can I do to feel better after a concussion? Retrieved from http://www.cdc.gov/concussion/feel_better.html.
25. Centers for Disease Control and Prevention. (n.d.). What are the potential long-term outcomes of TBI? Retrieved from www.cdc.gov/TraumaticBrainInjury/outcomes/html.
26. Centers for Disease Control and Prevention. (n.d.). Concussion: What can I do to feel better after a concussion? Retrieved from http://www.cdc.gov/concussion/feel_better.html.
27. Centers for Disease Control and Prevention. (n.d.). What are the potential long-term outcomes of TBI? Retrieved from www.cdc.gov/TraumaticBrainInjury/outcomes/html.
28. Centers for Disease Control and Prevention. (n.d.). Concussion: What can I do to feel better after a concussion? Retrieved from http://www.cdc.gov/concussion/feel_better.html.
29. New York State Office for the Prevention of Domestic Violence. (2009.). Safety planning for survivors with TBI.
30. Centers for Disease Control and Prevention. (n.d.). Concussion: What can I do to feel better after a concussion? Retrieved from http://www.cdc.gov/concussion/feel_better.html.
31. Weisz, Arlene N. (1999). Legal advocacy for domestic violence survivors: The power of an informative relationship. Family Service America. ProQuest Information and Learning Company. Retrieved from <http://www.ncdsv.org/images/Legaladvocacydomesticviolencesurvivors.pdf>.
32. New York State Coalition Against Domestic Violence. (2010). The intersection of brain injury and domestic violence. Technical assistance foundations.
33. Centers for Disease Control and Prevention. (n.d.). Concussion: What can I do to feel better after a concussion? Retrieved from http://www.cdc.gov/concussion/feel_better.html.
34. Centers for Disease Control and Prevention. (n.d.). Concussion: What can I do to feel better after a concussion? Retrieved from http://www.cdc.gov/concussion/feel_better.html.
35. Brown, Robert, M.ED. (n.d.). Alternative therapies for the head injury survivor: Therapeutic herbs and supplemental Nutrients. About.com: Holistic healing. Retrieved from http://healing.about.com/od/diseasesandhealthissues/a/tbi_5.htm.
36. Brain Injury Resource Center. (2008). Action plan. Retrieved from <http://www.headinjury.com/actionplan.htm>.

37. Brown, Robert, M.ED. (n.d.). Alternative therapies for the head injury survivor: Therapeutic herbs and supplemental Nutrients. About.com: Holistic healing. Retrieved from http://healing.about.com/od/diseasesandhealthissues/a/tbi_5.htm).
38. Ulrich, Anne OTR/L, CBIS and Newton, Mary, LMSW, PhD Candidate, CBIS. (2011.). Disability and sexual expression: Debunking the myths and working to break down barriers. Brain injury and sexuality. *Brain Injury Professional*, vol. 7 (1) p. 16.
39. Sander, Angelle. (2011). Integrating sexuality into traumatic brain injury rehabilitation. Brain injury and sexuality. *Brain Injury Professional*, vol. 7 (1), 10.
40. Sander, Angelle. (2011). Integrating sexuality into traumatic brain injury rehabilitation. Brain injury and sexuality. *Brain Injury Professional*, vol. 7 (1), 11.
41. Ulrich, Anne OTR/L, CBIS and Newton, Mary, LMSW, PhD Candidate, CBIS. (2011). Disability and sexual expression: Debunking the myths and working to break down barriers. Brain injury and sexuality. *Brain Injury Professional*, vol. 7 (1),16.
42. Centers for Disease Control and Prevention. (n.d.). Concussion: What can I do to feel better after a concussion? Retrieved from http://www.cdc.gov/concussion/feel_better.html.
43. New York State Office for the Prevention of Domestic Violence. (2009). Safety planning for survivors with TBI.

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Traumatic Brain Injury As a Result of Domestic Violence:

Information, Screening and Model Practices

Participant's Guide

Module VII: Safety Assessment and Planning



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Module VII: Safety Assessment and Planning

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MODULE VII – SAFETY ASSESSMENT AND PLANNING

Module VII training participants focus on identifying issues for domestic violence survivors with TBI and safety planning techniques relevant to individualized needs and experiences.

**Brain Injury
Helpline for
information,
referrals and
resources:
866-412-4755**

Domestic Violence Services, TBI and Safety Assessment and Planning

Safety risks and other barriers to accessing rehabilitative services may result in:

- Untreated and ongoing cognitive and behavioral issues that may significantly impact a survivor's,¹ and quite possibly her children's, quality of life.

TBI can result in a state of behavior or cognitive disability that can:

- Directly compromise a survivor's ability to plan for her or her children's safety.

Knowing domestic violence resources and safety planning measures are paramount when there is risk of a new or repeat TBI.

Safety Issues

A survivor's safety can be compromised due to abuse that is:

- Physical
- Emotional
- Mental
- Sexual
- Medical
- Psychological
- Economic

Safety issues may involve children. Research suggests that:

- Fifty percent of men who frequently assault their wives also abuse their children.²
- An estimated 30 to 60 percent of the families where either domestic violence or child maltreatment is identified, it is likely that both forms of abuse exist.³

Futures Without Violence has this to say about safety, parenting, and domestic violence:

On average, more than three women a day are murdered by their husbands or boyfriends in the United States and women experience two million injuries from intimate partner violence each year. Many of these women are mothers who often go to great and courageous lengths to protect their children from abusive partners. In fact, research has shown that the non-abusing parent is often the strongest protective factor in the lives of children who are exposed to domestic violence. However, growing up in a violent home may be a terrifying and traumatic experience that can affect every aspect of a child's life, growth and development. In spite of this, we know that when properly identified and addressed, the effects of domestic violence on children can be mitigated.⁴

It is important for domestic violence advocates to inform survivors that advocates are mandatory reporters of child abuse.

- At some point during the advocacy relationship, advocates can discuss long-term damage and safety hazards for children living with an abuser.

Socio-cultural circumstances that may further compromise safety for survivors of domestic violence include:

- Race
- Class
- Gender
- Sexuality
- Age
- National Origin
- Global Location
- Able-bodiedness

Assessing Safety

To begin assessing for safety specific to TBI-related issues, advocates can assess if any of the following apply to the survivor.⁵

The abuser exploits barriers resulting from the survivor's TBI, such as problems with:⁵

- Memory
- Logical decision-making
- Organization
- Holding a job
- Paying bills
- Caring for children or animals

The abuser tries to hide, break or otherwise block access to assistive devices she may use such as:⁵

- Wheelchairs⁵
- Memory aids⁵
- Voice recorders⁵
- Timers⁵
- Common devices such as eyeglasses and cell phones

The survivor uses a service animal.⁵

- Is that animal safe from harm?⁵
- Is she kept from properly caring for the animal?

The abuser removes notes or notepads by the phone to disorganize or confuse her.⁵

- Can she safely carry a notepad in her purse?
- Can she hide a notepad?

The abuser strains her relationships with family and friends, depriving her of needed support, and possibly a place to stay.

- Are there ways she could reach out for support and try to re-establish those connections to reduce isolation and increase options?

The abuser uses her responses or reactions as an excuse to become abusive.

- Can she prepare to take herself and children out of the room or house if she sees an abuser's anger, power or control escalating?

Are there any steps she can take to protect her head from future assaults?⁵

- If violence is unavoidable, she can try to become a smaller target by diving into a corner and curling up into a ball. She can try to protect her face and wrap her arms around each side of her head with her fingers locked together.⁶
- She may want to avoid wearing scarves or necklaces that could be used to strangle her.⁶
- If possible, she may want to make sure weapons like guns and knives are locked away and as inaccessible as possible.⁶

Her abuser has the capacity to track her location through her cell phone or other technology.

- Can she use a land phone line, email (if safe), and personal meetings for communication?
- Can she change her email password?

The survivor is pregnant.

- Can she wrap a pillow, blanket or her arms around her stomach if a physical assault is unavoidable?
- After a physical assault, will she have access to an obstetrical assessment?
- Can she enlist the help of a professional birth assistant, who is also trained in domestic violence advocacy, for support during the pregnancy, birth and post-partum period?

A professional birth assistant may be found through:

- Communicating her need through a domestic violence program medical advocate to ask for help in locating a birth assistant who may be willing and available to work with program participants
- Conducting an online search (or see the Additional Resources appendix at the end of the manual). Ask those listed in the area if they are willing to provide reduced or free services
- Communicating her need with a point person at a hospital
- Communicating her need with a point person at a community clinic
- Asking the domestic violence program supervisors if there are any professional birth assistants among the staff or volunteers



Advocacy Tip: While no formal study has been conducted connecting blunt trauma from domestic violence to brain injury acquired in-utero, advocates may urge survivors to take measures that will help protect the stomach area during pregnancy.

After the general TBI safety assessment, conduct a TBI lethality assessment:

- Let the survivor know that it is a general practice to ask if her life may be threatened.



Advocacy Tips: Some of the lethality assessment overlaps with the screening tools, yet it is an important component of safety planning.

Ask the survivor if the abuser has increased:

- Injuries to her head, neck or face more than other places on the body
- Methods of abuse, such as suffocation or dunking in pool water, that reduce oxygen
- Forced drug use
- Forced ingestion of medications or foods to which she allergic
- Denial of medical access or medicines

Ask the survivor if:

- Her abuser has gun in the home
- The police have been called to her home
- If so, how often, for what reason and who called
- Her abuser has threatened to kill her
- She feels that her life is in danger

A lethality assessment involves a suicide/ homicide assessment:**Ask the survivor if she has:**

- Ever felt so bad that she did not want to go on living
- Thought about killing herself
- If so, how
- Does she have access to items that could assist suicide or a plan to kill herself
- Attempted to take her life in the past⁷
- Considered killing her abuser
- If so, does she have plans to do so

If you assess that she is at risk for taking her own life or the life of her abuser, explain that:

- You recommend she speak immediately with crisis intervention, as that is one way to help keep her safe
- There are resources to help her and you will help her access those resources.

Safety Planning**When safety planning, advocates may ask survivors to predict and respond to possible actions and reactions of an abuser:⁸**

- Such abstract concepts may be particularly challenging for a person living with TBI⁸

When safety planning with someone who lives with TBI, an advocate must:

- Be clear in thought and communication⁸
- Be specific with suggestions
- Facilitate small steps⁸

Suggest a regular meeting the same day(s) and the same time each week to try to establish an easily predictable pattern.

It is beneficial for advocates to initiate explicit discussions in small increments about the:

- Abuser's pattern of behaviors
- Survivor's options
- What responses worked and did not work in the past for the survivor, and why

A survivor who has a TBI may not be aware of how the symptoms affect her; she may think she is functioning better than she is.⁸

- Tell her you are concerned about her safety
- Provide respectful feedback on problem areas that could affect her safety⁸

If it is safe for a survivor, suggest she keep:

- A journal with descriptions of assaults and other types of abuse, and dates they occurred
- Track of post-assault symptoms
- Photos of marks on the body from abuse
- A pocket calendar to keep track of days when there are abusive events



Advocacy Tip: If she decides to keep such a list, an advocate can work with her on identifying where to safely keep the information.

Safety plans should:

- Be reviewed frequently with advocates and in detail to help compensate for problems with memory, motivation, initiative and follow-through⁸
- Involve several steps that can be sequenced as steps 1., 2., 3., etc.⁸
- Include an escape bag packed ahead of time to be stored in a place well-hidden from the abuser, yet easy to find for the survivor.

An emergency escape bag may include:

- **A list of what to include in the escape bag**

and

- Birth certificates and immunization records for her and her children
- Non-perishable snacks, cans of food, a can opener and water bottles
- Over the counter medicines such as ibuprofen or aspirin, antacids, cough drops/medicine
- Prescription medications
- Money, identification and social security information

- Insurance and credit cards
- Protection from abuse order paperwork
- Proof of residency, such as property deeds, bills or home rental papers
- A set of weather-appropriate clothing and sleepwear for herself and children
- Diapers
- Extra car keys
- Toilet paper, wet wipes (for cleaning hands), pads/tampons
- Adult/children's vitamins
- Prenatal vitamins (if pregnant)
- Small possessions of personal significance, such as jewelry, journals or photos
- Children's favorite items

Carrying the National Hotline number may be an important safety measure to connect a survivor with the nearest domestic violence program and provide immediate support regarding safety planning and well-being.

- 1-800-799-SAFE (7233)
- 1800-787-3224 (TTY)

If Leaving Is an Option:

Can she plan to take her service⁸ or companion animals?

- Can she bring supplies for her service animal, such as food, medications, leashes and veterinary contacts?⁸

Can she plan to take assistive devices with her?⁸

- Can she take spare batteries for assistive devices?⁸
- Can she arrange for back-up assistive devices, instructions, and specific information on how and where to get replacements or repairs?⁸

Can she plan to take her medications with her?⁸

- Can she take medical information and medic alert systems?⁸
- Can she take contact information for medical personnel, TBI advocates and other service providers?⁸

Is she able to drive or use public transportation on her own? If not, how will she access transportation?⁸

- Can she have access to a car with a full tank of gas?

Working With Medical Providers

Advocates may remind medical providers that confidentiality maintenance includes:

- Never repeating information to the abuser provided by the survivor.⁹
- The signing of confidentiality release waivers between medical providers and advocates.⁹

If the survivor asks a medical provider to speak with the abuser about the abuse, the provider can first explore with the survivor possible consequences of the discussion.⁹

- Is the survivor in immediate danger⁹ and will the discussion cause the abuse to escalate?
- Will the abuser retaliate in any way later?⁹



Advocacy Tip: Advocates can stress to healthcare providers the necessity to speak with an abuser in total privacy and focus on the abuser's actions, not what the abuser claims the 'survivor did' to provoke the abuse⁹.

Hope For the Future

“New identity, new passion for gardening. First baby step was planted in containers so as to not fall into dirt because of imbalance. My garden has progressed as my new life has. Now, I not only can plant in the ground, I dig up grass and now have three perennial gardens.”

TBI Survivor¹⁰

For TBI and domestic violence survivors, there is hope for the future.

Summary

Module VII training participants focus on identifying issues for domestic violence survivors with TBI and safety planning techniques relevant to individualized needs and experiences.

Reference List: Module VII

1. Kamen, Deborah S., MS and Stefani O’Dea, MA. (2011). Planning for neurobehavioral needs of individuals with brain injury: The state perspective. State support of individuals with TBI. *Brain Injury Professional*, vol 7 (4), 9.
2. U.S. Department of Health and Human Services. (2003). Child protection in families experiencing domestic violence. The Overlap Between Child Maltreatment and Domestic Violence. Retrieved from <http://www.childwelfare.gov/pubs/usermanuals/domesticviolence/domesticviolenceb.cfm>).
3. U.S. Department of Health and Human Services. (2003). Child protection in families experiencing domestic violence. The Overlap Between Child Maltreatment and Domestic Violence. Retrieved from <http://www.childwelfare.gov/pubs/usermanuals/domesticviolence/domesticviolenceb.cfm>).
4. The Family Violence Prevention Fund. (2008). The facts on children and domestic violence. Retrieved from http://www.endabuse.org/userfiles/file/Children_and_Families/Children.pdf .
5. New York State Office for the Prevention of Domestic Violence. (2009). Safety planning for survivors with TBI.
6. The National Domestic Violence Hotline. (1998). Get Help. Safety Planning. Retrieved from <http://www.thehotline.org/get-help/safety-planning/#1>.
7. Warshaw, Carole, et al. (1996). Identification, assessment and intervention with survivors of domestic violence. *Improving the healthcare response to domestic violence: A resource manual for healthcare providers*. 70-71.
8. New York State Coalition Against Domestic Violence. (2010). The intersection of brain injury and domestic violence. Technical Assistance Foundations. 5.
9. Granley, Ann L. (1996). Health care responses to perpetrators of domestic violence. In Warshaw, C. and Ganley, Ann L. *Improving healthcare response to domestic violence: A resource manual for healthcare providers*. 91.
10. Lorenz, L.S. (2010). Making Visible the Invisible: Using photovoice to understand living with brain injury. Visual metaphors of living with brain injury: exploring and communicating lived experience with an invisible injury. *Visual Studies*, vol. 25 (3), 220.

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Traumatic Brain Injury

As a Result of Domestic Violence:

Information, Screening and Model Practices

Participant's Guide

Appendix A – Acronyms

| | | |
|----------------|---|--|
| ABI | – | Acquired Brain Injury |
| DV | – | Domestic Violence |
| HAI | – | Hypoxic-Anoxic-Injury |
| HELPPS | – | Hit/Head, Emergency Room, Lose Consciousness, Problems, Pregnant, Symptoms |
| IPV | – | Intimate Partner Violence |
| LGBTQQP | – | Lesbian, Gay, Bisexual, Trans, Queer, Questioning, Pansexual |
| LOC | – | Loss of Consciousness |
| MSG | – | Medical Screening Guide |
| PCADV | – | Pennsylvania Coalition Against Domestic Violence |
| PSG | – | Program Screening Guide |
| SAFE | – | Sexual Assault Forensic Examiner |
| SANE | – | Sexual Assault Nurse Examiner |
| SBS | – | Shaken Baby Syndrome |
| SIS | – | Second (or Subsequent) Impact Syndrome |
| STEPOF | – | Sphenoid, Temporal, Ethmoid, Parietal, Occipital, Frontal |
| TBI | – | Traumatic Brain Injury |

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Traumatic Brain Injury

As a Result of Domestic Violence:

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Appendix B – Additional Resources

Acquired Brain Injury Network of PA is a nonprofit organization of brain injury survivors and family members dedicated to increasing public awareness about acquired brain injury and to providing support, education, information, advocacy and other services for individuals with acquired brain injury and their families. More information can be found at <http://www.abin-pa.org/>, 1-800-516-8052.

Advocacy Skills, a link through the Brain Injury Resource Center, guides people with TBI in building skills for self-generated problem solving, empowerment and decision-making. <http://www.headinjury.com/advocacy.htm>.

Birth Support, see “Professional Birth Assistance Organizations” within this list.

Brain Injury Association of America, Inc. is the “country’s oldest and largest nationwide brain injury advocacy organization.” BIA provides “advocacy, education, and research” and lists the National Directory of Brain Injury Services at <https://secure.biausa.org/OnlineDirectory/Directory/Default.aspx>. <http://www.biausa.org>. 1-800-444-6443.

Also, BIA offers **Living with Brain Injury: A Guide for the Family of a Child with a Traumatic Brain Injury** available through the Brain Injury Association of America. More information can be found at <http://www.biausa.org>, 703-761-0750.

Brain Injury Association of Pennsylvania aims to prevent brain injury and improve the quality of life for people who have experienced brain injury and their family members through support, education, advocacy, and research. <http://www.biapa.org/site/c.iuLZJbMMKrH/b.1760731/k.BD3E/Home.htm>. 1-866-635-7097.

Brain Injury Helpline, a program of the Health and Human Services Call Center, provides referrals for services regarding individuals with TBI. 1-866-412-4755. TTY 1-877-232-7640. Online information can be found at <http://www.HelpinPA.state.pa.us>.

Brain Injury Resource Center is a non-profit clearinghouse founded and operated by brain injury activists since 1985.” Links include those to doctors, skills, advocacy, law and resources. <http://headinjury.com>. 206-621-8558.

Also offered by the BIRC is a:

Goal Setting guide that helps people with TBI establish goals and build analysis skills <http://www.headinjury.com/goalset.htm>.

Hotline to support people with TBI, and their family and friends: 206-621-8558.

Wellness Inventory tool to help those with TBI perform a daily check-in with themselves. The tool includes “health and wellness indicators” help people reflect on how they feel and behave, as well as increase self-awareness.

www.headinjury.com/wellness.htm.

BrainandSpinalCord.org is a “one-stop” resource site for those who have brain injury. <http://www.brainandspinalcord.org/traumatic-brain-injury-types/anoxic-brain-injury/index.html>. 1-888-808-5977.

Brain Steps program provides local school districts with the technical assistance they need to effectively support children and adolescents with TBI. Also, Brain Steps has a three-hour long presentation on the educational effects of brain injury. An overview of the Brain Steps program that can be located at

http://pdeconference.com/presentation/Brenda_Eagan_Brown.html.

The Brain Steps website is www.biapa.org/brainsteps.

Brain Trauma Foundation “is dedicated to improving the outcome of TBI patients worldwide by developing best practices guidelines, conducting clinical research, and educating medical professionals and consumers. <https://www.braintrauma.org/about/>. 212-772-0608.

Center for Disease Control data and other information on TBI can be located at www.cdc.gov and www.cdc.gov/concussion/.

Center for Disease Control also has the “Journalist’s Guide to Shaken Baby Syndrome: A Preventable Tragedy” available for download at http://www.cdc.gov/Concussion/pdf/SBS_Media_Guide_508_optimized-a.pdf. Here one can find information on signs, causes, risks and prevention measures for SBS.

Children’s Hospital of Philadelphia (CHOP) has a Transition to Adulthood program for children who live with special healthcare circumstances and would like to learn how to manage their own healthcare needs as they get older. Also, CHOP has information on Assistive Technology including text-to-speech technology, touch screens, and automatic Smart Home systems for lighting, temperature control, multi-media, security, and door operations. <http://www.chop.edu/service/transition-to-adulthood/home.html>. 215-590-7444.

Council on Brain Injury is a Pennsylvania based organization dedicated to research, advocacy and prevention of brain injury. <http://www.brain-injury-information.org/>.

Crime Victims Compensation Assistance Program may be able to offer compensation to cover various types of expenses related to crime, including domestic violence and sexual assault.

http://www.portal.state.pa.us/portal/server.pt/community/available_services/14558/financial_assistance/600143. 1-800-233-2339. Advocates from Pennsylvania domestic

violence programs only may contact PCADV for technical assistance on filing for victim's compensation. The PCADV crime victims' compensation contact is Denise Scotland at 717-545-6400x117. Advocates from other states may contact their coalition, or go to

<http://www.ojp.usdoj.gov/ovc/publications/infores/intdir2005/unitedstates.html> for other contact information

ECELS/Healthy Child Care PA is a program of the PA chapter of the American Academy of Pediatrics. ECELS provides technical assistance and education to help early education and child care practitioners give healthy and safe care. North American Brain Injury Association. 1-800-243-2357 (PA only), 484-446-3077, or email ecels@paaap.org.

Essential Skills For Everyday Functioning outlines ways that people with TBI can build skills for everyday functioning. <http://www.headinjury.com/selftest.htm>.

Head Bumps Matter – Protecting Young Brains is an online self-learning tool from the PA Chapter American Academy of Pediatrics <http://www.paaap.org/headbumpsmatter/Headbumpsmatter.htm>. The supporting document packet for the learning tool can be found at <http://www.ecels-healthychildcarepa.org/content/TBI%20Document%20Packet%20with%20cover%207-19-11.pdf>.

Heads Up is the CDC's information bank for coaches, parents and athletes involved in youth sports, with a focus on preventing, recognizing and responding to a concussion. <http://www.cdc.gov/concussion/HeadsUp/youth.html>.

To take the CDC's online training course go to http://www.cdc.gov/concussion/HeadsUp/online_training.html.

National Disability Rights Network is "a non-profit membership organization for the federally mandated Protection and Advocacy Systems and Client-Assistance Programs for individuals with disabilities." <http://www.napas.org>. 202-408-9514, (TTY) 202-408-9521.

National Shaken Baby Coalition “promotes public awareness of Shaken Baby Syndrome, advocates justice for the survivors of Shaken Baby Syndrome and provides support, guidance, understanding and compassion for the families of Shaken Baby Syndrome.” <http://www.shakenbabycoalition.org/board.htm>.

Pennsylvania Department of Health Head Injury Program (HIP) pays for head injury rehabilitation services for eligible individuals. For more information call the HIP program 717-772-2762 or the Brain Injury Helpline at 1-866-412-4755.

Pennsylvania Medical Home Initiative provides healthcare for children and families to work as a team to access all medical and non-medical services. www.pamedicalhome.org. 484-446-3093, 1-800-414-7391.

Professional Birth Assistance Organizations:

International Birth and Wellness Project has a link to locate professional birth assistants trained by their organization in a specific country and state. This organization is formerly the Association of Labor Assistants and Childbirth Educators. <http://www.alace.org/index>. 1-877-334-4297.

Doulas of North America (DONA) has a link to locate professional birth assistants trained by their organization in a specific country and state. <http://www.dona.org/>. 1-888-788-3662.

Childbirth International has a link to locate professional birth assistants trained by their organization in a specific country and state. <http://www.childbirthinternational.com/>.

TBI Glossary is for those looking to update their terminology and understanding with regard to TBI. <http://www.headinjury.com/tbiglossary.htm>.



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About Brain Injury

The Brain Injury Association of America and its state affiliates strive to connect people with useful, accurate information and resources in their area. If you or a family member are struggling with the effects of a brain injury, or think you may have sustained a brain injury, there is help. Here are some useful first steps:

- [Contact your State Brain Injury Association](#). The Brain Injury Association state offices will have information about Programs, support groups, and resources that could be helpful to you. They understand brain injury, and understand the resources available. Use that resource!
- Use this website as a starting point. Brain injury can be complex and overwhelming. We are here to help. Use the navigation menu to the left to find information that might be useful to you. [Contact us](#) if you can't find it!
- Find a [list of common issues](#) and suggested publications on our "[community](#)" page.
- Find some personal stories in our [Marketplace](#). Read about other people's experiences with recovery from a brain injury.
- Remember that not all the information you read will be relevant to you. Take what you need and leave the rest.
- Understand that recovery after a brain injury is a journey. You do not have to go it alone. Come back to the website or contact us for different information as you move along your journey.

This page offers helpful definitions and terms you might hear used. Use this page to help you understand brain injury a little better. Use the resources on other pages as well.

[Definitions](#)
[Types of brain injury](#)
[Causes](#)
[Outcomes](#)
[Severity of brain injury](#)
[Tips for recovery](#)

Brain Injury Definitions

Traumatic Brain Injury (TBI)

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

Adopted by the Brain Injury Association Board of Directors in 2011. This definition is not intended as an exclusive statement of the population served by the Brain Injury Association of America.

Acquired Brain Injury

An acquired brain injury is an injury to the brain, which is not hereditary, congenital, degenerative, or induced by birth trauma. An acquired brain injury is an injury to the brain that has occurred after birth.

There is sometimes confusion about what is considered an acquired brain injury. By definition, any traumatic brain injury (eg, from a motor vehicle accident, or assault) could be considered an acquired brain injury. In the field of brain injury, acquired brain injuries are typically considered any injury that is non traumatic. Examples of acquired brain injury include stroke, near drowning, hypoxic or anoxic brain injury, tumor, neurotoxins, electric shock or lightning strike.

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Types of Brain Injury

[Diffuse Axonal Injury \(TBI\)](#)

[Concussion \(TBI\)](#)

[Contusion \(TBI\)](#)

[Coup-contre coup injury \(TBI\)](#)

[Second Impact Syndrome \(TBI\)](#)

[Open and Closed Head Injuries](#)

[Penetrating Injury \(TBI\)](#)

[Shaken Baby Syndrome \(TBI\)](#)

[Locked in Syndrome \(TBI\)](#)

[Anoxic brain injury \(ABI\)](#)

[Hypoxic brain injury \(ABI\)](#)

Diffuse Axonal Injury

- A Diffuse Axonal Injury can be caused by shaking or strong rotation of the head, as with Shaken Baby Syndrome, or by rotational forces, such as with a car accident.
- Injury occurs because the unmoving brain lags behind the movement of the skull, causing brain structures to tear.
- There is extensive tearing of nerve tissue throughout the brain. This can cause brain chemicals to be released, causing additional injury.
- The tearing of the nerve tissue disrupts the brain's regular communication and chemical processes.
- This disturbance in the brain can produce temporary or permanent widespread brain damage, coma, or death.
- A person with a diffuse axonal injury could present a variety of functional impairments depending on where the shearing (tears) occurred in the brain.

Concussion

- A concussion can be caused by direct blows to the head, gunshot wounds, violent shaking of the head, or force from a whiplash type injury.
- Both closed and open head injuries can produce a concussion. A concussion is the most common type of traumatic brain injury.
- A concussion is caused when the brain receives trauma from an impact or a sudden momentum or movement change. The blood vessels in the brain may stretch and cranial nerves may be damaged.
- A person may or may not experience a brief loss of consciousness (not exceeding 20 minutes). A person may remain conscious, but feel "dazed" or "punch drunk".
- A concussion may or may not show up on a diagnostic imaging test, such as a CAT Scan.
- Skull fracture, brain bleeding, or swelling may or may not be present. Therefore, concussion is sometimes defined by exclusion and is considered a complex neurobehavioral syndrome.
- A concussion can cause diffuse axonal type injury resulting in permanent or temporary damage.
- It may take a few months to a few years for a concussion to heal.

Contusion

- A contusion can be the result of a direct impact to the head.
- A contusion is a bruise (bleeding) on the brain.
- Large contusions may need to be surgically removed.

Coup-Contrecoup Injury

- Coup-Contrecoup Injury describes contusions that are both at the site of the impact and on the complete opposite side of the brain.
- This occurs when the force impacting the head is not only great enough to cause a contusion at the site of impact, but also is able to move the brain and cause it to slam into the opposite side of the skull, which causes the additional contusion.

Second Impact Syndrome "Recurrent Traumatic Brain Injury"

- Second Impact Syndrome, also termed "recurrent traumatic brain injury," can occur when a person sustains a second traumatic brain injury before the symptoms of the first traumatic brain injury have healed. The second injury may occur from days to weeks following the first. Loss of consciousness is not required. The second impact is more likely to cause brain swelling and widespread damage.
- Because death can occur rapidly, emergency medical treatment is needed as soon as possible.
- The long-term effects of recurrent brain injury can be muscle spasms, increased muscle tone, rapidly changing emotions, hallucinations, and difficulty thinking and learning.

Penetrating Injury

- Penetrating injury to the brain occurs from the impact of a bullet, knife or other sharp object that forces hair, skin, bone and fragments from the object into the brain.
- Objects traveling at a low rate of speed through the skull and brain can ricochet within the skull, which widens the area of damage.
- A "through-and-through" injury occurs if an object enters the skull, goes through the brain, and exits the skull. Through-and-through traumatic brain injuries include the effects of penetration injuries, plus additional shearing, stretching and rupture of brain tissue.
- The devastating traumatic brain injuries caused by bullet wounds result in a 91% firearm-related death rate overall.
- Firearms are the single largest cause of death from traumatic brain injury.

Sources: Brumback R. Oklahoma Notes: Neurology and Clinical Neuroscience. (2nd ed.). New York: Springer;

2006. and [Center for Disease Control and Injury Prevention](#).

Shaken Baby Syndrome

- Shaken Baby Syndrome is a violent criminal act that causes traumatic brain injury. Shaken Baby Syndrome occurs when the perpetrator aggressively shakes a baby or young child. The forceful whiplash-like motion causes the brain to be injured.
- Blood vessels between the brain and skull rupture and bleed.
- The accumulation of blood causes the brain tissue to compress while the injury causes the brain to swell. This damages the brain cells.
- Shaken Baby Syndrome can cause seizures, lifelong disability, coma, and death.
- Irritability, changes in eating patterns, tiredness, difficulty breathing, dilated pupils, seizures, and vomiting are signs of Shaken Baby Syndrome. A baby experiencing such symptoms needs immediate emergency medical attention.

Source: [National Center on Shaken Baby Syndrome](#)

Locked in Syndrome

- Locked in Syndrome is a rare neurological condition in which a person cannot physically move any part of the body except the eyes.
- The person is conscious and able to think.
- Vertical eye movements and eye blinking can be used to communicate with others and operate environmental controls.

Anoxic Brain Injury

- Anoxic Brain Injury occurs when the brain does not receive oxygen. Cells in the brain need oxygen to survive and function. Types of Anoxic Brain Injury:
 - Anoxic Anoxia - Brain injury from no oxygen supplied to the brain
 - Anemic Anoxia - Brain injury from blood that does not carry enough oxygen
 - Toxic Anoxia - Brain injury from toxins or metabolites that block oxygen in the blood from being used

Source: Zasler, N. Brain Injury Source, Volume 3, Issue 3, Ask the Doctor

Hypoxic Brain Injury

- Hypoxic Brain Injury results when the brain receives some, but not enough, oxygen. A Hypoxic Ischemic Brain Injury, also called Stagnant Hypoxia or Ischemic Insult, occurs because of a critical reduction in blood flow or low blood pressure leading to a lack of blood flow to the brain.

Source: Zasler, N. Brain Injury Source, [Volume 3, Issue 3, Ask the Doctor](#)

Open Head Injury

The following are terms used to describe types of skull fractures that can occur with open head injuries:

- Depressed Skull Fracture - The broken piece of skull bone moves in towards the brain.
- Compound Skull Fracture - The scalp is cut and the skull is fractured.
- Basilar Skull Fracture:
 - The skull fracture is located at the base of the skull (neck area) and may include the opening at the base of the skull.
 - Can cause damage to the nerves and blood vessels that pass through the opening at the base of the skull.
- Battle's Sign
 - The skull fracture is located at the ear's petrous bone.
 - This produces large "black and blue mark" looking areas below the ear, on the jaw and neck.
 - It may include damage to the nerve for hearing.
 - Blood or cerebral spinal fluid may leak out of the ear. This is termed "CSF Oterrhea."
- Raccoon Eyes
 - The skull fracture is located in the anterior cranial fossa.
 - This produces "black and blue" mark looking areas around the eyes.
 - Cerebral spinal fluid may leak into the sinuses. This is termed "CSF Rhinorrhea."
 - Nerve damage for the sense of smell or eye functions may occur.
- Diastatic Skull Fracture
 - The skull of infants and children are not completely solid until they grow older.
 - The skull is composed of jigsaw-like segments (cranial fissures) which are connected together by cranial sutures.
 - Skull fractures that separate the cranial sutures in children prior to the closing of the cranial fissures are termed "diastatic skull fractures."
- Cribiform Plate Fracture
 - The cribiform plate is a thin structure located behind the nose area.
 - If the cribiform plate is fractured, cerebral spinal fluid can leak from the brain area out the nose

Closed Head Injury

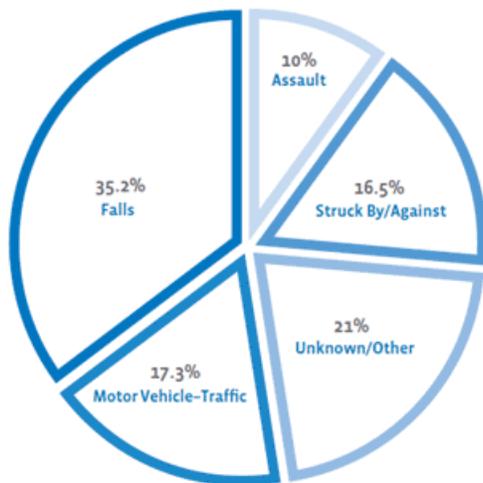
When a person receives an impact to the head from an outside force, but the skull does not fracture or displace this condition is termed a "closed head injury". Again, separate terminology is added to describe the brain injury. For example, a person may have a closed head injury with a severe traumatic brain injury.

- With a closed head injury, when the brain swells, the brain has no place to expand. This can cause an increase in intracranial pressure, which is the pressure within the skull.
- If the brain swells and has no place to expand, this can cause brain tissues to compress, causing further injury.

- As the brain swells, it may expand through any available opening in the skull, including the eye sockets. When the brain expands through the eye sockets, it can compress and impair the functions of the eye nerves. For instance, if an eye nerve, Cranial Nerve III, is compressed, a person's pupil (the dark center part of the eye) will appear dilated (big). This is one reason why medical personal may monitor a person's pupil size and intracranial pressure.

Causes

According to the [Centers for Disease and Control Injury Prevention Center](#), the leading causes of traumatic brain injury are:



- Falls: 35.2%
- Unknown/Other: 21%
- Motor Vehicle: 17.3%
- Struck by/Against: 16.5%
- Assault: 10%

Outcomes After Brain Injury

Brain injury can result in a range of outcomes:

- 52,000 die;
- 275,000 are hospitalized; and
- 1,365,000 are treated and released from an emergency department.

Among children ages 0 to 14 years, TBI results in an estimated

- 2,685 deaths;
- 37,000 hospitalizations; and
- 435,000 emergency department visits.

The number of people with TBI who are not seen in an emergency department or who receive no care is unknown.

Source: [Centers for Disease Control and Injury Prevention](#)

Severity of Brain Injury

Emergency personnel typically determine the severity of a brain injury by using an assessment called the Glasgow Coma Scale (GCS). The terms Mild Brain Injury, Moderate Brain Injury, and Severe Brain Injury are used to describe the level of initial injury in relation to the neurological severity caused to the brain. **There may be no correlation between the initial Glasgow Coma Scale score and the initial level of brain injury and a person's short or long term recovery, or functional abilities.** Keep in mind that there is nothing "Mild" about a brain injury—the term "Mild" Brain injury is used to describe a level of neurological injury. Any injury to the brain is a real and serious medical condition. There is additional information about mild brain injury on our [mild brain injury page](#).

Glasgow Coma Scale (GCS)

| Glasgow Coma Score | | |
|----------------------|----------------------------|-----------------------|
| Eye Opening (E) | Verbal Response (V) | Motor Response (M) |
| 4=Spontaneous | 5=Normal conversation | 6=Normal |
| 3=To voice | 4=Disoriented conversation | 5=Localizes to pain |
| 2=To pain | 3=Words, but not coherent | 4=Withdraws to pain |
| 1=None | 2=No words.....only sounds | 3=Decorticate posture |
| | 1=None | 2=Decerebrate |
| | | 1=None |
| Total = E+V+M | | |

The scale comprises three tests: eye, verbal and motor responses. The three values separately as well as their sum are considered. The lowest possible GCS (the sum) is 3 (deep coma or death), while the highest is 15 (fully awake person). A GCS score of 13-15 is considered a "mild" injury; a score of 9-12 is considered a moderate injury; and 8 or below is considered a severe brain injury.

Mild Traumatic Brain Injury (GCS of 13-15)

Some symptoms of mild TBI include:

- Headache
- Fatigue
- Sleep disturbance
- Irritability
- Sensitivity to noise or light
- Balance problems
- Decreased concentration and attention span
- Decreased speed of thinking
- Memory problems
- Nausea
- Depression and anxiety
- Emotional mood swings

This information is not intended to be a substitute for medical advice or examination. A person with a suspected brain injury should contact a physician immediately, go to the emergency room, or call 911 in the case of an emergency. Symptoms of mild TBI can be temporary. The majority of people with mild TBI recover, though the timetable for recovery can vary significantly from person to person.

Moderate Brain Injury (GCS of 8-12)

A moderate TBI occurs when there is a loss of consciousness that lasts from a few minutes to a few hours, when confusion lasts from days to weeks, or when physical, cognitive, and/or behavioral impairments last for months or are permanent. Persons with moderate TBI generally can make a good recovery with treatment and successfully learn to compensate for their deficits.

Source: Defense and Veterans Head Injury Program & Brain Injury Association. Brain Injury and You. 1996.

Severe Brain Injury (GCS Below 8)

Severe brain injury occurs when a prolonged unconscious state or coma lasts days, weeks, or months. Severe brain injury is further categorized into subgroups with separate features:

- Coma
- Vegetative State
- Persistent Vegetative State
- Minimally Responsive State
- Akinetic Mutism
- Locked-in Syndrome

Tips to Aid Recovery

- Get lots of rest. Don't rush back to daily activities such as work or school.
- Avoid doing anything that could cause another blow or jolt to the head.
- Ask your doctor when it's safe to drive a car, ride a bike, or use heavy equipment, because your ability to react may be slower after a brain injury.
- Take only the medications your doctor has approved, and don't drink alcohol until your doctor says it's OK.
- Write things down if you have a hard time remembering.
- You may need help to re-learn skills that were lost. Contact the [Brain Injury Association](#) in your state to learn more about the programs, supports and services available to people with brain injury and their families.



Services & Resources on this site reflect the best practices in the field of Traumatic Brain Injury



Providing wealth of information, creative solutions and leadership on issues related to brain injury since
1985
206-621-8558

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IF YOU ARE EXPERIENCING LOSSES OR CHANGES WITH YOUR **Memory**
From The Ashes and the Super Bowl XXXIV Connection — Author Constance Miller



YOUR TOOLKIT

Celebrating the life of
Roger Dale Sosby
nationally recognized horse expert
Alpharetta, GA
01/07/54 - 02/20/03

In memory of
16-year-old, football player
Scott Wehnes, 1982 - 1998

Let's hear it for
TBI survivor Colleen Edwards
Tacoma, WA

 206-621-8558



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Brain Injury In Sports

Sports-Related Recurrent Brain Injuries - United States

An estimated 300,000 sports related traumatic brain injuries, **TBIs**, of mild to moderate severity , most of which can be classified as **concussions**, (i.e., conditions of temporary altered mental status as a result of head trauma, occur in the United States each year. The proportion of these concussions that are repeat injuries is unknown; however, there is an **increased risk** for subsequent **TBI** among persons who have had at least one previous **TBI** . Repeated mild brain injuries occurring over an extended period (i.e., months or years can result in **cumulative neurologic and cognitive deficits**, but repeated mild brain injuries occurring within a short period (i.e., hours, days, weeks) can be **catastrophic or fatal**. The latter phenomenon, termed "**second impact syndrome**" has been reported more frequently since it was first characterized in 1984. This page describes two cases of second impact syndrome and presents recommendations developed by the American Academy of Neurology to prevent recurrent brain injuries in sports and their adverse consequences.

Learn About Brain Injury

[Brain Injury Types](#)

[Brain Injury Treatment - acute](#)

[Brain Injury Treatment - Mild](#)

[Brain Injury Checklist](#)

[Brain Injury Glossary](#)

[Brain Injury Costs](#)

[Brain Injury FAQ](#)

[Coma](#)

[Spinal Cord Injury](#)

[Brain Map](#)

[Pain Map](#)

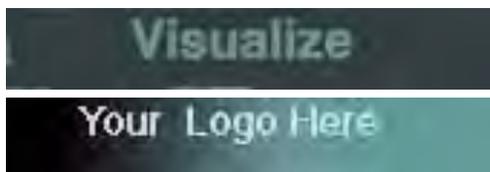
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and get a
great
tax break

In memory of
17-year-old, football player
Matt Colby, 1984 - 2001
Costa Mesa High School,
Costa Mesa, CA

In memory of
24-year-old, football player
Curtis Williams, 1978 - 2002
University of Washington "Husky"
Seattle, WA



Life after brain injury

[Getting Started](#)

[Essential Skills](#)

[Personal Safety Net](#)

[Self Assessment](#)

[Denial](#)

[When I Grow up](#)

[Daily Journal](#)

Case Reports:

Case 1. During October 1991, a 17-year-old high school football player was tackled on the last day of the first half of a varsity game and struck his head on the ground. During half-time intermission, he told a teammate that he felt ill and had a headache; he did not tell his coach. He played again during the third quarter and received several routine blows to his helmet during blocks and tackles. He then collapsed on the field and was taken to a local hospital in a coma. A computerized tomography (CT-Scan) brain scan revealed diffuse swelling of the brain and a small subdural hematoma. He was transferred to a regional trauma center, where attempts to reduce elevated intracranial pressure were unsuccessful, and he was pronounced dead 4 days later. Autopsy revealed diffuse brain swelling focal areas of subcortical ischemia, and a small sub dural hematoma. [TBI Glossary](#)

Case 2. During August 1993, a 19-year-old college football player reported headache to family members after a full contact-practice during summer training. During practice the following day he collapsed on the field approximately 2 minutes after engaging in a tackle. He was transported to a nearby trauma center where a CT scan of the head showed diffuse brain swelling and a thin subdural hematoma. Attempts to control the elevated intracranial pressure failed, and he was pronounced brain dead 3 days later. Autopsy revealed the brain to be diffusely swollen with evidence of cerebrovascular congestion and features of temporal lobe herniation.

Second Impact Syndrome. The two cases described above involved repeated head trauma with probable concussions that separately might be considered mild but in additive effect were fatal. The risk for catastrophic effects from successive seemingly mild concussions sustained within a short period is not yet widely recognized. Second Impact Syndrome results from acute, usually fatal, brain swelling that occurs when a second concussion is sustained before complete

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recovery from a previous concussion that causes vascular congestion and increased intracranial pressure, which may be difficult or impossible to control.

The Dangers of Concussion

"...during the minutes to few days after concussion injury, brain cells that are not irreversibly destroyed remain alive but exist in a vulnerable state. This concept of injury-induced vulnerability has been put forth to describe the fact that patients suffering from head injury are extremely vulnerable to the consequences of even minor changes in cerebral blood flow and/or increases in intracranial pressure and apnea...."

"Experimental studies have identified metabolic dysfunction as the key postconcussion physiologic event that produces and maintains this state of vulnerability. This period of enhanced vulnerability is characterized by both an increase in the demand for glucose (fuel) and an inexplicable reduction in cerebral blood flow (fuel delivery).⁵⁸ The result is an inability of the neurovascular system to respond to increasing demands for energy to reestablish its normal chemical and ionic environments. This is dangerous because these altered environments can kill brain cells." --

The American Orthopaedic Society for Sports Medicine - url: <http://www.intelli.com/vhosts/aossm-isite/html/main.cgi?sub=151>

Relative Risk. The risk for second impact syndrome should be considered in a variety of sports associated with likelihood of blows to the head, including boxing, football, ice or roller hockey, soccer, baseball, basketball, and snow skiing.

Neurologists say **once a person suffers a**

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[Doctor Checklist](#)

[Rehab Facilities](#)

[Rehab Finder](#)

[Rehab Checklist](#)

concussion, he is as much as four times more likely to sustain a second one. Moreover, after several concussions, it takes less of a blow to cause the injury and requires more time to recover. Troy Aikman sustained 8 concussions that he publicly admits to, the last two occurred since January 1, 2000. According to league officials there are about 160 concussions in the N.F.L. and 70 in the NHL each year.

Sideline Guidelines. The American Academy of Neurology has adopted recommendations for the management of concussion in sports that are designed to prevent second impact syndrome and to reduce the frequency of other cumulative brain injuries related to sports. These recommendations define symptoms and signs of concussion of varying severity and indicate intervals during which athletes should refrain from sports activity following a concussion. Following head impact athletes with any alteration in mental status, including transient confusion or amnesia with or without loss of consciousness, should not return to activity until examined by a health -care provider familiar with these guidelines.

The popularity of contact sports in the United States exposes a large number of participants to risk for brain injury. Recurrent brain injuries can be serious or fatal and may not respond to medical treatment. However, recurrent brain injuries and second impact syndrome are highly preventable. Physicians, health and physical education instructors, athletic coaches and trainers parents of children participating in contact sports and the general public should become familiar with these recommendations.

Source: Centers for Disease Control and Prevention, Dept. of Health and Human Services, USA. 1997

More than just a bump on the head! Though not always visible and sometimes seemingly minor, head injury is complex. It can cause physical, cognitive, social, and vocational changes. In many cases recovery becomes a lifelong process of adjustments and accommodations for the individual and the family.

Depending on the extent and location of the injury, impairments caused by a head injury can vary widely. The irony of mild head injuries is that often, such injuries do not even require a hospital stay, yet they result in changes so profound that lives are forever changed.

Some common impairments include difficulties with memory, mood, and concentration.

Others include significant deficits in organizational and reasoning skills, learning, cognitive, and executive functions.

Recovery from a head injury can be inconsistent. In many cases gains may be closely followed by setbacks and plateaus. A "plateau" is not evidence that functional improvement has ended. Typically plateaus are followed by gains.

Changes in memory and organizational skills after a brain injury makes it difficult to function in complex environments. The resources on this page will provide answers and guidance concerning many of the most puzzling aspects of traumatic brain injury.

The family and friends feel the psychic repercussions of the head injury acutely as well. Caring for an injured family member can be very demanding and result in economic loss and emotional burdens.

It can change the very nature of their family life; the resultant emotional difficulties can affect the cohesiveness of the family unit. Typically, the emotional damage is intense, affecting family and friends for years afterward and sometimes leading to the breakup of previously stable family units.

Summary of Recommendations of Management of Concussion in Sports

A concussion is defined a head-trauma-induced alteration in mental status that may or may not involve loss of consciousness. Concussions are graded in three categories. Definitions and treatment recommendations for each category are presented below.

Grade 1 Concussion

Definition: Transient Confusion, no loss of consciousness, and a duration of mental status abnormalities of less than 15 minutes.

Management: The athlete should be removed from sports activity, examined immediately and at 5 minute intervals, and allowed to return that day to the sports activity only if post concussive symptoms resolve within 15 minutes. Any athlete who incurs a second Grade 1 concussion on the same day should be removed from sports activity until asymptomatic for 1 week.

Grade 2 Concussion:

Definition: Transient confusion, no loss of consciousness, and a duration of mental status abnormalities of more than 15 minutes.

Management: The athlete should be removed from sports activity, examined immediately and frequently to assess the evolution of symptoms, with more extensive diagnostic evaluation if the symptoms worsen or persist for more than 1 week. The should return to sports activity only after asymptomatic for 1full week. Any athlete who incurs a Grade 2 concussion subsequent to a Grade 1 concussion on the same day should be removed from sports activity until asymptomatic for 2 weeks.

Grade 3 Concussion:

Definition: Loss of consciousness, either brief (seconds) or prolonged (minutes or longer).

Management: The athlete should be removed from sports activity for 1 full week without symptoms if the loss of consciousness is brief, or 2 full weeks without symptoms if the loss of consciousness is prolonged. If still unconscious, or if abnormal neurologic signs are present at the time of initial evaluation, the athlete should be transported by ambulance to the nearest hospital emergency department. An athlete who suffers a second Grade 3 concussion should be removed from sports activity until asymptomatic for 1 month. Any athlete with an abnormality on computed tomography or magnetic resonance imaging brain scan consistent with brain swelling, contusion, or other intracranial pathology should be removed from sports activities for the season and discouraged from future return to participation in contact sports.

Features of Concussion Frequently Observed:

1. Vacant stare (befuddled facial expression)
2. Delayed verbal and motor responses (slow to answer questions or follow instructions)
3. Confusion and inability to focus attention (easily distracted and unable to follow through with normal activities)
4. Disorientation (wandering in the wrong direction; unaware of time, date and place)
5. Slurred or incoherent speech (making disjointed or incomprehensible statements)
6. Gross observable incoordination (stumbling, inability to walk tandem/straight line)
7. Emotions out of proportion to circumstances (distracted, crying for no apparent reason)
8. Memory deficits (exhibited by the athlete repeatedly asking the same question that has already been answered, or inability to memorize and recall 3 of 3 words, or 3 of 3 objects in 5 minutes)
9. Any period of loss of consciousness (paralytic coma, unresponsiveness to arousal)

Additional Resources:

Roberts, William, MD "Who Plays? Who Sits?", The Physician in Sports Medicine, 6/92, Vol 20, No. 6, pp. 66-72.

Kelly, James P. "Concussion," Current Therapy in Sports Medicine. Mosby - Year Book, Inc. 1995, pp 21 - 24.

Saunders, R. and Harbaugh, R., "The Second Impact in Catastrophic Contact-

Also see our [Coma](#) page

Additional Resources

[Campaign Safe & Sober](#) - Safe Driving Tips Motorcycle Helmets: The Facts of Life Safe Communities Success Stories Tribal Communities NHTSA's Kids Home Page Contact Lists Materials Catalog Reply Card President's Letter The...**url:**

<http://www.nhtsa.dot.gov/people/outreach/safesobr/OPlanner/protection/safecomm.html>

Injury Related Web Sites - [National Center for Injury Prevention and Control](#) Search NCIPC Links to organizations found at this site are provided solely as a service.

url:<http://www.cdc.gov/ncipc/injweb/websites.htm>

[SafeUSA](#) -- Information and fact sheets for the general public and health consumers.

url: <http://www.cdc.gov/safeusa/siteindex.htm>

Protective Gear:

[Plum Enterprises](#) -- 500 Freedom View Lane, PO Box 85, Valley Forge, PA 19481-- Manufacturers of protective headgear for head protection around the house after head injury, surgery, during epileptic seizures, etc. These protective caps are not designed for the heavy impacts seen in most sports. Sizes available from toddlers to adults. **Telephone:** 800-321-PLUMB; **Fax:** 610-783-7577 -- **url:** <http://www.plument.com/>
email: lynn@plument.com

[WIPSS Jaw-Joint Protector](#), a custom fit mouthpiece that prevents jaw joint, head, and mouth injuries. Jaw Joint Injuries occur at an alarming rate in soccer. According to [Bill Whitney](#), Olympic Development Soccer Coach, the primary reasons for injury are:

getting hit in the jaw by the ball,
the aggressive action of the opponent,
heading the ball

The amount of force calculated the moment a soccer ball hits the head of a player is 208 joules. Since the jaw is not attached to the skull, and knowing that every force produces equal and opposite directional components of force, the impact causes the lower jaw to slam against the base of the skull. These forces account for a large percentage of the damage found in the jaw joints of soccer players.

WIPSS Products, Inc.- email: wwhitney@voicenet.com -- **URL:** <http://www.wipss.com/>

[SoccerDocs](#) -- During the summer of 1994 one of SoccerDocs' founders, like many soccer parents across the nation, was enjoying his seven-year-old son Charles' soccer game. While Charles was goalkeeping an uncontested shot found its way through the defenders and struck him directly in the forehead before Charles could put up his hands. The shot caused a concussion, resulting in headaches and dizziness.

This incident motivated his father to find head protection but he soon realized that no practical product existed. He was surprised to learn from a review of the scientific literature

that there was a potential for long-term effects even from non-catastrophic head injuries (when the player does not lose consciousness). While concerned about his son's safety, he also knew that Charles wanted to continue to play the game he loved. This is what led him to co-found SoccerDocs. **url:** <http://www.soccerdocs.com/>

Telephones : 1-877-HEADER-1 -- 1-877-432-3371 -- 612- 823-2426

Head Blast -- The inventor of a so-called "shinguard for your head" is bracing for jeers from world-class soccer players when his product hits the market next month. Zatin conceived the idea when his 12-year-old son Ben complained of dizziness after heading a fast-moving clearance pass back to the other side of the field. He took Ben straight to a local sporting goods store in search of protection. Zatin, who owns a small printing press and hat-binding company, has begun production of a laminated foam headband he says softens the impact of headers by 30 to 50 percent. By design, the ball would go no farther or shorter than if it struck a player's forehead.

Dr. David Janda, director of the Institute for Preventative Sports Medicine, said he plans to test Zatin's headband at his Ann Arbor, Mich., lab. But he expressed concern it would protect children only from the headers they do correctly, leaving the most tender spot at the top of the head exposed.

"When you watch kids learn to head the ball, they'll hit it off the front of their head, the back of their head, the side of the head, their shoulder -- they're all over the map," Janda said. "A headband type of approach still leaves the head vulnerable." **telephone:** 314- 652-2700 -- **url:** <http://www.headblast.com/>

Bicycle Helmet Safety Institute -- A helmet advocacy program of the Washington, DC Area Bicyclist Association. They are a small, active, non-profit consumer-funded program acting as a clearinghouse and a technical resource for bicycle helmet information. Their volunteers serve on the ASTM and ANSI bicycle helmet standard committees and are active in commenting on actions of the Consumer Product Safety Commission. They provide a documentation service and a number of helmet publications.

url: <http://www.helmets.org> -- **email:** webmaster@helmets.org

National Safe Kids Campaign -- 1301 Pennsylvania Ave NW, Ste 1000, Washington, DC 20004-1707

Telephone: 202-662-0600; **Fax:** 202-393-2072 -- **url:** <http://www.safekids.org/> **email:**

International Inline Skating Association -- 201 N. Front St. #306, Wilmington, NC 28401

Telephone: 910-762-7004 -- **email:** director@iisa.org

American National Standards Institute ANSI -- 11 W 42 Street, 13th fl, NY 10036,

Telephone: (212) 642-4900; **Fax:** 212- 302-1286 -- **url:** <http://www.ansi.org>

U.S. Consumer Product Safety Commission - CPSC -- Washington, DC 20207

Telephone: 301-504-0424; **Fax:** 301-504-0124 -- **url:** www.cpsc.gov -- **email:** info@cpsc.gov

American Society For Testing And Materials - ASTM -- 100 Barr Harbor Drive
Conshohocken, PA 19428-2959 -- **Telephone:** 610-832-9500; **Fax:** 610- 832-9555

World Health Organization - WHO -- **Helmet Initiative and Helmet Resource Center** -- Look at what people are doing worldwide to reduce injuries and deaths through the use of helmets. Included is a link to "Headlines", the quarterly newsletter of the WHO Helmet Initiative. **url:** <http://www.sph.emory.edu/Helmets>

World Health Organization - WHO - OMS -- Department of Health Promotion (HPR),
 1211 Geneva 27
 Switzerland -- **Fax:** 41-22-791-4186 -- **url:** <http://www.who.org/> -- **email:**
 mainesa@who.org

Snell Memorial Foundation -- 3628 Madison Ave, Ste 11-- North Highlands, CA 95660 --
 A not-for-profit organization dedicated to research, education, testing and development of
 helmet safety standards. Since its founding in 1957, Snell has been a leader in the frontier of
 helmet safety in the United States and around the world. **Telephone:** 916- 331-5073; **Fax:**
 916-331-0359 --
url <http://www.smf.org/> -- **email:** info@smf.org

Centers for Disease Control -- Washington, DC -- **url:** <http://www.cdc.gov>

Bureau of Transportation Statistics -- This DOT site links to transportation data from
 government and other public sources. **url:** <http://www.bts.gov>

Sports Organizations

| | |
|---|--|
| <p><u>US Youth Soccer</u> http://www.usysa.org/</p> | <p><u>Women's National Basketball Assoc.</u> - WNBA http://www.wnba.com</p> |
| <p><u>Nat'l Soccer Coaches Assoc of America</u> 800-458-0678 http://www.nscac.com/</p> | <p><u>Women's Boxing</u> http://www.geocities.com/Colosseum/Field/6251</p> |
| <p><u>International Rugby Football Board</u> Dublin Ireland Telephone: 3531-662-5444 http://www.irfb.com/ email: irb@irb.ie</p> | <p><u>Sports Illustrated for Women</u> http://CNNSI.com/siforwomen/index.html</p> |
| <p><u>League of American Bicyclists</u> 1612 K Street NW, Ste 401 Washington, DC 20006- 2082 Telephone: 202-822-1333 Fax: 202-822-1334 URL: http://www.bikeleague.org email: bikeleague@bikeleague.org</p> | <p><u>Special Olympics Inc.</u> 1325 G Street, NW / Suite 500 Washington, DC 20005 Telephone: 202-628-3630 Fax: 202-824-0200 URL: http://www.specialolympics.org/ email: webmasteso@aol.com</p> |
| <p><u>Ride Safe Home Page</u> email:</p> | <p><u>Womens Sports Foundation</u> 305-315 Hither Green Lane Lewisham, London, SE13 6TJ</p> |

rsdkl@ix.netcom.com

URL:

<http://ridesafeinc.com>

Tel/fax: 0181-697 5370

URL: <http://www.wsf.org.uk/>

Email: info@wsf.u-net.com

[Global Cycling Network](#)

URL:

<http://www.cycling.org>

[The International Olympic Committee Women and Sport Working Group](#)

RETIRED BOXERS

FOUNDATION

3359 Bryan Avenue

Simi Valley, CA 93063

Phone (805) 583-5890

Fax (805) 306-1663

www.retiredboxers.org

JaxFacts@ix.netcom.com

For more information concerning the Management of Consciousness in Sports Public Education Campaign. please contact: Head Injury Hotline -- <http://www.headinjury.com> -
email: brain@headinjury.com

Head Injury Hotline: Providing Difficult to Find Information About Head Injury Since 1985



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brain@headinjury.com

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THE INTERSECTION OF BRAIN INJURY AND DOMESTIC VIOLENCE

The use of physical violence to establish and maintain power and control over an intimate partner is a widely recognized form of domestic violence. Survivors often report horrific acts of abuse, including (but not limited to) repeated hits to the head, neck and face, strangulation, smothering, shaking, and penetrating head wounds. Domestic violence advocates witness the devastating psychological and physical effects of these attacks upon survivors. It is within the past ten years, through collaboration with brain injury service providers, that the intersection between such intimate partner violence and brain injury (BI) has been acknowledged.

Service provision to survivors who are living with a brain injury is unique and nuanced, as the advocate must balance the privileging of safety and confidentiality with the need for coordination of services and accommodation of brain injury related challenges. This short guide provides foundational information about brain injury and the possible complications that this disability can provide to domestic violence survivors. Furthermore, this guide includes suggestions for providing informed services to domestic violence survivors living with a brain injury, and further resources to access for more information.

Women with disabilities experience the highest rate of personal violence...of any group in our society today. Yet, they are often invisible in crime statistics, find domestic and sexual violence programs inadequately prepared to fully understand and meet their needs...and are all too commonly devalued and unsupported because of societal prejudice.

(University of Minnesota, 2000)

Special thanks to *Judy Avner, Executive Director* of the Brain Injury Association of New York State for her collaboration on this project and willingness to share her vast knowledge on this topic!

This technical assistance publication was developed by Sarah DeWard, M.S. at NYSCADV.

For more information, contact NYSCADV.

NYSCADV

**NEW YORK STATE COALITION
AGAINST DOMESTIC VIOLENCE**

350 New Scotland Ave
Albany, NY 12208

p 518.482.5465
f 518.482.3807

nyscadv@nyscadv.org
www.nyscadv.org

Brain Injury: The Basics

An acquired brain injury is a type of injury to the brain that is not hereditary or degenerative. Included in this category are injuries obtained through anoxia, or deprivation of oxygen (for example, strangulation). Traumatic Brain Injury (TBI) is a type of damage to the brain which results when the head:

- hits a stationary object (for example, slammed into a wall or table)
- is hit (for example, struck with a blunt object, like a baseball bat or lamp)
- is penetrated (for example, gunshot or knife wound)
- is violently shaken (for example, severe whiplash)

Domestic violence service providers recognize that these acts of physical violence are frequently perpetrated against survivors. There is a known cumulative effect of brain injuries. Research indicates that a history of brain injuries exponentially increases the likelihood of further brain injuries. In fact, the effects of repeat brain injuries often compound, resulting in more serious disabilities. A domestic violence victim may not know that she has a brain injury, especially if she was denied access to medical care, or refused treatment. Unfortunately, many brain injuries are undiagnosed or misdiagnosed.

Common Challenges Associated with Brain Injury

Remember that each person is different, and each brain injury is different. Not all people will exhibit the same combination of problems or concerns related to the brain injury. As is common practice with domestic violence service provision, each survivor living with a brain injury should be treated individually from a strengths-based, empowerment approach. Remember that people’s needs can change across time, and that recovery from a brain injury is not sequential. Below is a snapshot of the most common problems associated with brain injury, and should not be seen as a comprehensive listing.

Possible Physical Disabilities

- Balance and visual difficulties
- Slurring of speech
- Fatigue
- Sleep

Possible Cognitive Disabilities

- Short term memory loss
- Difficulty with concentration and attention
- Difficulty with abstraction and conceptualization
- Heightened distractibility

Possible Executive Functioning Disabilities

- Problems with long term goal setting
- Difficulty with task completion
- Issues with long term planning
- Problems with self-monitoring

Possible Behavioral and Affective Disabilities

- Increased impulsivity
- Increased tension and anxiety
- Depression
- Decreased frustration tolerance

Possible Psychosocial Disabilities

- Educational/vocational problems
- Interpersonal difficulties (intimacy, dependency, substance abuse)

Leading Causes of TBI

- 28% - Falls**
- 20% - Motor Vehicle or Traffic**
- 19% - Struck By or Against**
- 11% - Assault**
- 9% - Unknown**
- 7% - Other**
- 3% - Pedal Cycle**
- 2% - Other Transport**
- 1% - Suicide**

(CDC, 2007)

Brain Injury and Domestic Violence

A domestic violence survivor living with a brain injury must negotiate a very complex set of life circumstances. The brain injury is a temporary or permanent disability that serves as a constant and inescapable reminder of her batterer and the abuse suffered. In addition to the other physical and emotional consequences of the abuse, the survivor must also integrate a new set of challenges related to the brain injury. Along with navigating the real concerns for safety, autonomy, and independence, domestic violence survivors living with a brain injury may also cope with additional employment and economic concerns related to the BI.

Consider other challenges that domestic violence survivors face, for example, child custody proceeding or criminal court testimony. Successful utilization of the justice system often requires the ability to communicate incidences of abuse from memory using detailed, sequential, rapid, clear communication. These functions may be compromised by the brain injury. These challenges may diminish the survivor's credibility in the courtroom, and have dire outcomes to the survivor's life.

Batterers will use every life circumstance to their advantage to further manipulate and control victims. The presence of a brain injury provides new opportunities for tactics of power and control. For example, new forms of manipulation may include making the victim doubt her own perceptions and memory of the abuse, using statements such as: "That never happened," or "You're crazy." The BI may also be used as a further tool of isolation, explaining away her accounts of abuse and subsequent need for support and help as a symptom of the brain injury.

Finally, we know that survivors must combat many forms of oppression, including sexism, racism, classism, and heterosexism. In addition, ableism (the privileging of the experiences of the able-bodied, and the subsequent discrimination and devaluing of those who are differently-abled) is another form of oppression experienced by domestic violence survivors living with a brain injury. Ignorance, prejudice, and active discrimination provide more barriers for survivors seeking safety, support, and help from service providers and systems.

*Of women reporting to emergency rooms for injuries associated with domestic violence, **30%** reported a loss of consciousness at least once.*

***67%** reported residual problems that were potentially head-injury related.*

(Corrigan, 2003)

Providing Services to Survivors with Brain Injury

Revisit Survivor-Centered Advocacy and Empowerment Philosophy
Domestic violence service providers should revisit the core concepts of empowering survivor-centered advocacy when working with a survivor living with a brain injury. Every individual comes for services with unique challenges and strengths, and it is imperative for advocates to truly understand and accommodate this uniqueness. Do not assume that a survivor diagnosed with a BI will have certain deficits. Similarly, do not assume that a survivor does not have a BI because there is no formal diagnosis. Remember that a diagnosis is simply a label—it is a formality and not central to our work as advocates. As always, it is the role of the advocate to truly listen to what the survivor living with a BI is expressing, focus on strengths, and provide feedback in a respectful and positive way.

Build Organizational Capacity and Policies

Commit to learning more about the realities of brain injury, as well as other disabilities that may be affecting domestic violence survivors. Seek out technical assistance and training from organizations that are known experts in this field. Spend time during staff meetings discussing organizational policies and procedures for women with disabilities seeking services.

Re-evaluate Shelter Rules

Be careful about misunderstanding with shelter rules or other behavioral concerns as willful non-compliance. This behavior may have an underlying link to a brain injury. Perhaps the survivor with a brain injury will require special advocacy or case management within the shelter itself—for example, being respectfully and consistently reminded of communal living responsibilities, or being provided a date book, planner, or post-it notes to help in with her memory. Ask the survivor what accommodations help her most. As per the Americans with Disabilities Act, shelters are required to provide such accommodations for those with a disability—including a brain injury.

Advocate and Educate Against Oppression

As you learn about the realities of traumatic brain injury, and its intersection with domestic violence, commit to educating others. Systems advocacy is oftentimes a core function of domestic violence advocates, and this generally includes an educational component. Consider incorporating traumatic brain injury into these discussions with other professionals in a respectful way.

For a survivor with a TBI, it may be harder to...

- *Assess danger*
- *Make safety plans*
- *Hold a job*
- *Leave an abusive partner*
- *Live independently*
- *Remember appointments*
- *Live in shelter*
- *Access services*
- *Navigate the criminal justice system*
- *Care for children*

(NYS OPDV, 2009)

Providing Services to Survivors with Brain Injury (continued)

Re-format Safety Planning

Abstract thought may be hard for those living with a brain injury, and a safety planning discussion is full of hypothetical scenarios and theoretical circumstances. For example, advocates may ask a survivor to predict the batterer's actions and reactions, hide emergency items and remember where to retrieve them, and envision an emergency escape plan to be remembered and executed in crisis. Advocates have discussions like these with survivors everyday, but these crucial safety planning discussions framed in this way may be very challenging for a survivor living with a brain injury.

To help facilitate a more productive safety planning discussion, minimize outside distractions (phone, interruptions, noise, fluorescent lighting) during safety planning discussions. Keep your meetings short, and understand that these abbreviated meetings may need to take place more frequently. Keep the meetings focused on a single topic, and direct the conversation to stay on the one task. Make all discussions and future action items concrete, and simplify information into small, manageable pieces. Finally, summarize the information at the end of your discussion, and check that she understands.

Develop New Community Partnerships

Make community connections to further provide access to survivors living with a brain injury. Consider building collaborations with your state brain injury association and local brain injury service providers.

Learn more about:

- Traumatic Brain Injury Medicaid waiver programs
- Community-based rehabilitation programs
- Return-to-Work vocational planning programs
- Independent living centers

Consider Screening

The HELPS tool is often used to quickly screen for brain injury. Consider asking survivors the following questions to help determine the likelihood of a brain injury. "Yes" answers to any of the following questions should prompt outreach for evaluation for a brain injury. *Please remember that this screening tool is simply a quick guide, and does not determine or diagnose a brain injury. Please seek a brain injury service provider for more information.*

- H- Were you ever HIT on the head?
- E- Did you ever seek EMERGENCY room treatment?
- L- Did you ever LOSE consciousness?
- P- Are you having PROBLEMS with concentration or memory?
- S- Did you experience SICKNESS or other problems following the injury?

The entire HELPS screening tool, including the complete scoring system, can be found in the NRCDV Special Collection: TBI and DV at www.vawnet.org.

Our Collaboration:

***The Brain Injury Association of New York State and
the New York State Coalition Against Domestic Violence***

The Brain Injury Association of New York State (BIANYS) and the New York State Coalition Against Domestic Violence (NYSCADV) continue their two-year collaboration to educate others about the intersection of brain injury and domestic violence. They provide cross training and educational handouts to both brain injury and domestic violence service providers, including material packets distributed during both Brain Injury Awareness month (March) and Domestic Violence Awareness month (October). BIANYS and NYSCADV have presented numerous trainings about the intersection of traumatic brain injury and domestic violence, including two webinars hosted by the National Resource Center on Domestic Violence. For more information about this nationally recognized collaboration, please contact the BIANYS or NYSCADV at the information listed below.

Resources

Brain Injury Association of New York State. Judith Avner, Executive Director, 10 Colvin Avenue, Albany, NY 12206, javner@bianys.org, www.bianys.org, 518-459-7911, 800-228-8201.

National Resource Center on Domestic Violence. 2010. *Special Collection: Traumatic Brain Injury and Domestic Violence: Understanding the Intersections*, Accessed June 4, 2010: http://new.vawnet.org/category/index_pages.php?category_id=1075 .

New York State Coalition Against Domestic Violence. Sarah DeWard, Training and Membership Services, 350 New Scotland Avenue, Albany, NY 12208, sdeward@nyscadv.org, www.nyscadv.org, 518-482-5465.

Sources

Avner, J. and S. DeWard. 2010. "Domestic Violence and Traumatic Brain Injury: Understanding the Intersections." Accessed June 15, 2010: http://new.vawnet.org/Assoc_Files_VAWnet/TBIandDVWebinarSlides.pdf .

Corrigan, J. D., Wolfe, M., Mysiw, J., Jackson, R. D., & Bogner, J. A. Early identification of mild traumatic brain injury in female victims of domestic violence. *American Journal of Obstetrics and Gynecology*, 188(5), S71-S76.

National Center for Injury Prevention and Control, Centers for Disease Control. 2010. "Traumatic Brain Injury." Accessed June 15, 2010: <http://www.cdc.gov/ncipc/factsheets/tbi.htm> .

New York State Office for the Prevention of Domestic Violence. 2009. "Traumatic Brain Injury and Domestic Violence." Accessed June 4, 2010: <http://www.opdv.state.ny.us/professionals/tbi/index.html> .

University of Minnesota, *Impact Magazine*, Fall 2000, Available at: <http://ici.umn.edu/products/impact/133/133.pdf>

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

Including:

- headache that keeps coming back
- pain in head muscle
- pain in head bone (skull)
- pain below the ear
- pain in the jaw
- pain in or around eyes

Balance Problems

- dizziness
- trouble with balance

Sensory Changes

- bothered by smells
- changes in taste or smell
- appetite changes



- ringing in the ears
- hearing loss
- bothered by noises
- can't handle normal background noise



- feels too hot
- feels too cold
- doesn't feel temperature at all

- blurry vision
- seeing double
- hard to see clearly (hard to focus)
- bothered by light



Sleep Problems

- can't sleep through the night
- sleeps too much
- days and nights get mixed up

Pain Problems

- neck & shoulder pain that happens a lot
- other unexplained body pain



These problems don't happen often. If your child has any of them, see your doctor right away.

- ▲ severe headache that does not go away or get better
- ▲ seizures: eyes fluttering, body going stiff, staring into space
- ▲ child forgets everything, amnesia
- ▲ hands shake, tremors, muscles get weak, loss of muscle tone
- ▲ nausea or vomiting that returns

Continued on Back

BEHAVIOR and FEELINGS

Changes in personality, mood or behavior

- is irritable, anxious, restless
- gets upset or frustrated easily
- overreacts, cries or laughs too easily
- has mood swings

- wants to be alone or away from people
- is afraid of others, blames others
- wants to be taken care of
- does not know how to act with people
- takes risks without thinking first

- is sad, depressed
- doesn't want to do anything, can't "get started"
- is tired, drowsy
- is slow to respond
- trips, falls, drops things, is awkward

- eats too little, eats all the time, or eats things that aren't food
- has different sexual behavior (older children)
- starts using or has a different reaction to alcohol or drugs
- takes off clothes in public

THINKING PROBLEMS

- has trouble remembering things
- has trouble paying attention
- reacts slowly
- thinks slowly
- takes things too literally, doesn't get jokes
- understands words but not their meaning
- thinks about the same thing over and over
- has trouble learning new things

- has trouble putting things in order (desk, room, papers)
- has trouble making decisions
- has trouble planning, starting, doing, and finishing a task
- has trouble remembering to do things on time
- makes poor choices (loss of common sense)

TROUBLE COMMUNICATING

- changes the subject, has trouble staying on topic
- has trouble thinking of the right word
- has trouble listening
- has trouble paying attention, can't have long conversations
- does not say things clearly
- has trouble reading
- talks too much

WHAT TO DO:

If your child has any of the problems on this list, and they don't go away:

- ▲ Ask your child's doctor to have your child seen by a specialist in head injury who can help your child learn skills (rehabilitation).
- ▲ Ask your child's doctor to have your child seen by a Board-certified Neuropsychologist. This specialist can help you understand and deal with your child's behavior and feeling changes.
- ▲ Call the Brain Injury Association of Arizona for more information:

(602) 323-9165 Phoenix Helpline

1-888-500-9165 Toll-Free Statewide Helpline

We have only listed the problems we see most often when a child's brain is hurt. Not every problem that could happen is on this list.



ARIZONA GOVERNOR'S COUNCIL
ON SPINAL AND HEAD INJURIES

For additional copies of this publication, or to obtain this information in an alternative format, contact the Arizona Governor's Council on Spinal & Head Injuries at: Voice/(602) 863-0484 or through the AZ Relay Service.

Accommodations for Individuals with Brain Injury

Staff Completing Checklist: _____ Client Name: _____ Date: _____

| <p>Challenges:</p> | <p>Suggested Accommodations</p> |
|---|---|
| <p>Problems with Attention</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Work only on one task at a time. <input type="checkbox"/> Have client participate in discussion and development of plan. <input type="checkbox"/> Limit distractions (both visual and verbal). <input type="checkbox"/> Meet in a quiet environment. |
| <p>Problems with Processing Information Quickly</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Allow additional time to answer questions. <input type="checkbox"/> Speak slowly, making sure client understands. <input type="checkbox"/> Offer assistance with completing written forms. <input type="checkbox"/> Allow additional time to complete forms. |
| <p>Problems with Memory</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Provide written documentation, when possible, to supplement verbal discussions. <input type="checkbox"/> Present new information in small, concise chunks. <input type="checkbox"/> Encourage client to write down instructions/information. <input type="checkbox"/> Check client's understanding by asking for a restatement of information provided. <input type="checkbox"/> Provide cues to help client recall information. <input type="checkbox"/> Do not assume she will remember information you provided in earlier meetings. Review previous goals/meetings. Inconsistency is the hall-mark in brain injury. |
| <p>Problems with Planning, Organizing and Self-Control</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Present information in a factual manner, avoiding abstract concepts where possible. <input type="checkbox"/> Provide several solutions to a problem and encourage client to make the best choice. Engage in problem solving. "What would happen if..?" <input type="checkbox"/> Provide written direction that summarizes steps to be followed in the plan. |
| <p>Problems with Communication</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Limit use of open-ended questions. Use <u>yes/no</u> format, structured, or multiple choice where possible. <input type="checkbox"/> If client wanders off topic, redirect to topic at hand. <input type="checkbox"/> Cue client with beginning sounds of word if client has word-finding difficulties. |
| <p>Emotional Changes</p> | <ul style="list-style-type: none"> <input type="checkbox"/> Don't interpret a lack of emotion as a sign of lack of interest. <input type="checkbox"/> Minimize anxiety with reassurance, education, and structure. <input type="checkbox"/> Provide neutral, but direct, feedback if client behaves inappropriately. <input type="checkbox"/> Suggest breaks or other activities if client becomes irritable or agitated. <input type="checkbox"/> Don't interpret poor follow-through or forgetfulness as resistance. |

If you need additional assistance in accommodating the individual with whom you are working, contact either the Alabama Head Injury Foundation Helpline at 1-800-433-8002 or TBI/SCI Helpline at 1-888-879-4706.

❧ Safety Planning for Victims with TBI ❧

Safety planning is a very concrete, specific process, but you may need to break plans down into very small steps when working with a victim who has a TBI. Questions about specific TBI-related issues may be useful.

❧ Protecting her head

- Are there any steps she can take to protect her head from future assaults?
- Are there steps she can take to protect her head from accidental re-injury? Ideas may include:
 - Removing tripping hazards such as throw rugs.
 - Keeping hallways, stairs and doorways free of clutter.
 - Putting a nonslip mat in the bathtub or shower floor.
 - Installing grab bars next to the toilet and in the tub or shower.
 - Installing handrails on both sides of stairways.
 - Improving lighting inside and outside her home.
 - Always wearing a helmet when bike riding, rollerblading, skiing, etc.

❧ Accessing services

- Is she aware of, and able to access, TBI-related medical care, rehabilitation and support services?
- Does she depend on her abusive partner for any disability or health-related assistance?
- Does the abuser exploit barriers created by her TBI?
- What assistive devices does she use? Some people with TBI use wheelchairs, but most do not. Many use memory aids, such as voice recorders, timers and blackberries.
- Is it safe for her to take notes or keep notepads by the phone?
- Does she have a way to keep her service animal safe, if she has one?

❧ Managing her mood and energy

- Is she short-tempered, irritable or aggressive? If so:
 - Does she pick fights with her partner that he uses as an excuse to become abusive?
 - Has it strained her relationships with family and friends, depriving her of needed support?
- Has she been depressed? Depression may be related to the TBI, the abuse, or both. Remind her of her strengths, which depressed people tend to forget.
- Is she tired all the time? Fatigue is common, and may be related to the TBI, the depression, or both. Be realistic about how much – or how little – she may be able to do in a given day.

Financial independence

- Is she able to work? If so, how supportive is her employer in terms of both the domestic violence and the TBI?
- Does she have difficulty holding a job?
- Is she getting whatever benefits she might be entitled to?
- Has she filed an application for state crime victims compensation? It may pay for services if the TBI was caused by a criminal act. Help her fill out an application and compile needed documentation.

Leaving

- Does she have a plan to take her service animal and assistive devices with her?
- Is she able to drive or use public transportation on her own? If not, how will she access transportation?
- Does her emergency escape bag include (as needed):
 - Spare batteries for assistive devices?
 - Back-up assistive devices, and specific information on how and where to get replacements or repairs?
 - Instructions for use of technical equipment?
 - Medications, medical information, and medic alert systems?
 - Contact information for medical personnel, TBI advocates and other service providers?
 - Social Security award letter, payee information and benefit information?
 - Supplies for her service animal – food, medications, leashes, vet’s contact information, etc.?¹



Hints to Remember

- Safety plans should be reviewed frequently and in detail, to help compensate for problems with memory, motivation, initiative and follow-through.
- An action plan that involves several steps should be sequenced: first do A, then B, then C.
- A victim who has a TBI may not be aware of how it is affecting her, and may think she is functioning better than she is. Provide respectful feedback on problem areas that affect her safety.

¹ Empire Justice Center, Building Bridges: A Cross-Systems Training Manual for Domestic Violence Programs and Disability Service Providers in New York, 2006

Domestic Violence & Traumatic Brain Injury

Bibliography

- Arosarena, O.A., Fritsch, T.A., Hsueh, Y., Aynehchi, B., & Haug, R. (2009). Maxillofacial injuries and violence against women, *Archives of Facial Plastic Surgery*, 11(1): 48-52.
- Corrigan, J.D., Wolfe, M., Mysiw, J., Jackson, R.D. & Bogner, J.A. Early identification of mild traumatic brain injury in female victims of domestic violence. *American Journal of Obstetrics and Gynecology*, 188, S71 – S76.
- Empire Justice Center, *Building Bridges: A Cross-Systems Training Manual for Domestic Violence Programs and Disability Service Providers in New York*, 2006
- Funk, M. & Schuppel, J. (2003). Strangulation injuries, *Wisconsin Medical Journal*: 102 (3), 41-45.
http://www.wisconsinmedicalsociety.org/WMS/publications/wmj/issues/wmj_v102n3/funk.pdf
- Jackson, H., Philp, E., Nuttall, R.L. & Diller, L. (2002). Traumatic Brain Injury: A Hidden Consequence for Battered Women. *Professional Psychology: Research & Practice*, 33, 1, 39-45.
- Monahan, K. & O'Leary, K. D. (1999). Head injury and battered women: An initial inquiry. *Health and Social Work*, 24, #4, 269-278.
- Mechanic, M.B., Weaver, T.L., & Resick, P.A. (2008). Risk factors for physical injury among help-seeking battered women, *Violence Against Women*, 14 (10), 1148-1165 (relevant page is 1160).
- Picard, N., Scarisbrick, R. & Paluck, R., (1999). *HELPS (Grant # H128A0002)*. Washington, DC: US Department of Education Rehabilitation Services Administration, International Center for the Disabled.
- Stern, J. (2004). Traumatic brain injury: An effect and cause of domestic violence & child abuse. *Current Neurology and Neuroscience Reports*, 4, 179–181.



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