



## Create Change Through Knowledge About Traumatic Brain Injury (TBI)

### The “Basics” About Traumatic Brain Injury (TBI)

The brain is a highly complex organ that controls all aspects of the human body and personality. Walking, talking, breathing, and the way a person acts, feels, and thinks are all directed by the brain. A traumatic brain injury (TBI) changes the way the brain functions. Individuals may require months or years to recover, and may work continuously to meet and overcome the challenges from the injury. Some will have changes that will last for a lifetime. Someone who experiences a TBI is called a “survivor.”

#### *What is a traumatic brain injury?*

Traumatic brain injury is defined as an alteration in brain function caused by an external force.<sup>1</sup> There are two key types: one is a bump, blow, or jolt to the head, and the second type is a penetrating injury. A bump, blow, or jolt to the head can cause violent head motions that injure the brain. An example is if you were to hit your head on the windshield during a car accident. Even a simple fall can cause a jolt to the brain that disrupts how it normally functions. The second type is described as a penetrating injury, such as from a gunshot wound, or from a piece of shrapnel that enters the skull and brain. These types of injury cause a pathway of damage.

#### *Are all traumatic brain injuries the same?*

Traumatic brain injuries vary in severity from mild to severe. Simply stated, no two brain injuries are the same. A concussion is a type of mild traumatic brain injury.<sup>2</sup> Mild injuries may interfere with daily living and interrupt the way the person feels, acts, and behaves. Severe injuries can be life threatening and can result in partial or significant loss of function in many areas.

#### *Who is affected by TBI?*

According to data from the Centers for Disease Control and Prevention, approximately 1.7 million people sustain a traumatic brain injury every year.<sup>3</sup> TBI affects people of every age. High-risk groups include children (0 to 4 years), adolescents (15 to 19 years of age), and older adults (65 years and older).<sup>3</sup> TBI is also a concern for the military population, especially following an exposure to a blast caused by an improvised explosive device (IED). About 20 percent of service members returning from deployment report probable TBI.<sup>4</sup>

### How Does a TBI Affect a Survivor?

Each person is affected in a different way. What may be an important concern for one survivor may be of less concern for another. Capabilities may improve over time and a survivor may become able to better manage his or her impacts of the injury.

#### *Physical*

Some physical impacts may be obvious. For example, it's easy to see when a survivor has difficulty moving or speaking clearly. Other physical impacts are hidden from view, such as headaches or trouble sleeping. These impacts are just as frustrating for an individual and family. Other changes, such as to hearing, vision, taste, or smell may occur. Seizures after TBI can become a concern.

## **Cognitive**

Cognitive changes are just another way of saying that the thinking process may be affected. A survivor may find it difficult to concentrate, organize thoughts, or think of the right word to say during a conversation. He may make unsafe decisions because he may not understand a situation in the way that he might have before the TBI. A common challenge for many is difficulty with memory, especially when trying to remember conversations and events since the injury.

*“I now rely much more on technology to compensate for the struggles that are involved with having a head injury.”*

## **Emotional**

An injury to the brain can affect how a person feels and emotionally responds. The survivor is not “just being difficult” or using the injury as an excuse. Some types of changes may include mood swings, depression, or becoming more easily frustrated. Emotional impacts may result from important adjustments that result from the injury and the recognition of those changes.

## **Behavioral**

A TBI can also affect how the survivor behaves. Especially right after the injury and early in the recovery process, the survivor may have poor self-control or outbursts. People who experience TBI may have less ability to monitor or control their behaviors. They may engage in impulsive or impatient actions.

## **What are Some Consequences of TBI?**

The impact of TBI has a “ripple effect” through all aspects of a person’s life. The personality and actions of an individual after a TBI may be different from what they were before the injury happened. These changes may have consequences for relationships with family and friends, activities of daily living, and finding and keeping a job.

## **Changes in Relationships**

The consequences of a TBI affect the survivor but also spouses or partners, children, parents, friends, and community members. Duties and roles, such as parenting responsibilities, may need to be adjusted. Survivors and family members sometimes comment on personality changes. For example, a person may seem shyer after the injury when he was previously more outgoing. Close friends may struggle to adjust to the new reality of the friendship. Acquaintances and community members may not understand the challenges experienced by a survivor and the family, which may affect acceptance within the community.

## **Participation in Activities of Daily Living**

Challenges to “activities of daily living,” such as driving, managing money, shopping, preparing meals, or dressing, can make it difficult for a person who experiences a TBI to be independent or live on his own. For example, physical changes may make driving more difficult, which may have consequences for daily living. A common issue for many is memory. It may be a challenge to remember what happened a few days ago or a few minutes ago. It’s also hard to remember something that’s going to happen in the future. The survivor may forget to pay a bill or may know that it is due but can’t remember where he put it at home. An everyday task such as grocery shopping can become overwhelming without a detailed list and a map of the store.

## **Return to Work**

Returning to work is an important goal for many. It may be challenging to go back to the career or job that was held before the injury. As one example, a survivor may not have the physical capabilities for his or her previous position. It’s easy to understand that physical tiredness may be a concern, whether it is related to the use of a wheelchair, or having the stamina for an 8-hour workday. Work also requires many other “thinking” capabilities, such as concentration, memory, and problem-solving. Overall, work can be mentally exhausting.

## How You and Your Community Create Positive Differences

Individuals and the community (groups, organizations, and services) are important to the health and well-being of people with TBI and their families. Increased awareness of TBI helps contribute to acceptance, which is important for survivors and family members in truly becoming part of the community.<sup>5</sup> You can also provide social support, while understanding that a person's needs may change over time.

It is important to remember the family as well. When the family feels supported, it often means better outcomes for the individual receiving their care.<sup>6</sup> This means that community support for the family may have benefits for the survivor, too.

### ***What can you do?***

One way to show support is through the use of person-first language, which emphasizes the person and not the person's disability. In conversation, reference the "person who experienced traumatic brain injury" rather than phrases such as "brain injured people" or "TBI person." Those are labels that describe people by their disability. This is a simple but important way to be sensitive to others.

Always be patient and honest. Don't rush a person during conversation. Give individuals a little extra time to organize their thoughts or think of the word they want to say. Never pretend to understand if you don't. It is appropriate to ask a person to repeat what they were saying to you.

You can also offer specific help and aid. For example, many people who experience a TBI have challenges with transportation. A simple offer to drive someone to the grocery store, a doctor's appointment, or to a

support group meeting with other survivors may be viewed as a great help. Your offers to help family members, perhaps with a childcare concern, support the person who experienced the TBI as well.

These are just a few ideas. You may find more suggestions for making a positive difference by reading *Create Positive Differences for People Who Experience Traumatic Brain Injury (TBI)*, publication MF3042.

### ***What is the role of your community?***

Living successfully in the community is the ultimate goal of many survivors and their families. Your community can make a significant difference. It may be that your community has areas of need. Perhaps a service group or organization might want to address that need as a community project. Examples might include developing a meal or public transportation program that helps contribute to living independently in your community.

It's also important that your community promotes inclusion. This refers to encouraging individuals and their family members to participate in community groups and activities. You can encourage local businesses to hire survivors and support them in their work. We all benefit from accessible buildings, activities, and events. Imagine how frustrating it might be to avoid certain stores or restaurants because the entrance doesn't have a ramp or aisles are too narrow for a wheelchair because they are cluttered with merchandise. Promoting accessibility is another way for your community to promote inclusion.

These are just a few ideas. You may find more suggestions for making a positive difference by reading *Create a Supportive Community for People Who Experience Traumatic Brain Injury (TBI)*, publication MF3041.

*"I guess I don't look at anything like 'oh, I can't do that, I'm in a chair.' I always look at things like I want to do that...let's figure out how to do it."*

*Help contribute to change through knowledge about traumatic brain injury!*

*"After a traumatic accident, you cannot expect anyone to be back to where they were originally, but be patient. Accept. Don't wait for them to be the person they were. Accept them for who they are now. Just be there for them..."*

## To Learn More

You may find the following resources helpful:

- To learn more about the K-State Research and Extension educational programs *TBIOptions: Promoting Knowledge* and *TBIOptions: Connecting to Resources*, please visit [www.TBIOptions.ksu.edu/Knowledge](http://www.TBIOptions.ksu.edu/Knowledge) and [www.TBIOptions.ksu.edu](http://www.TBIOptions.ksu.edu).
- For information about the statewide network that supports Kansans with TBI, please visit TBI Kansas: The Traumatic Brain Injury Resource Network for Kansans, [www.tbikansas.org/Default.aspx](http://www.tbikansas.org/Default.aspx).
- For information and resources, training, and support group information, please visit the Brain Injury Association of Kansas and Greater Kansas City, [www.biaks.org](http://www.biaks.org), [info@biaks.org](mailto:info@biaks.org), 800-444-6443.

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## Notes

<sup>1</sup>Brain Injury Association of America. "BIAA Adopts New TBI Definition," [Internet – WWW, URL], <http://www.biausa.org/AnnouncementRetrieve.aspx?ID=66290>, 6 February 2011.

<sup>2</sup>Office of Communications and Public Liaison, National Institute of Neurological Disorders and Stroke, National Institutes of Health. (2011, April 15). *Traumatic brain injury: Hope through research*. Retrieved August 2, 2011, from [http://www.ninds.nih.gov/disorders/tbi/detail\\_tbi.htm](http://www.ninds.nih.gov/disorders/tbi/detail_tbi.htm)

<sup>3</sup>Faul, M., Xu, L., Wald, M. M., & Coronado, V. G. (2010). *Traumatic brain injury in the United States: Emergency department visits, hospitalizations and deaths 2002–2006*. Atlanta, GA: Centers for Disease Control and Prevention, National Center for Injury Prevention and Control.

<sup>4</sup>Tanielian, T., & Jaycox, L. H., (Eds.). (2008). *Invisible wounds of war: Psychological and cognitive injuries, their consequences, and services to assist recovery*. Santa Monica: RAND Corporation. Available at <http://veterans.rand.org>

<sup>5</sup>Rotondi, A. J., Sinkule, J., Balzer, K., Harris, J. & Moldovan, R. (2007). A qualitative needs assessment of persons who have experienced traumatic brain injury and their primary family caregivers. *Journal of Head Trauma Rehabilitation*, 22(1), 14-25

<sup>6</sup>Vangel, S. J., Rapport, L. J., & Hanks, R. A. (2011). Effects of family and caregiver psychosocial functioning on outcomes in persons with traumatic brain injury, *Journal of Head Trauma Rehabilitation*, 26(1), 20-29.

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