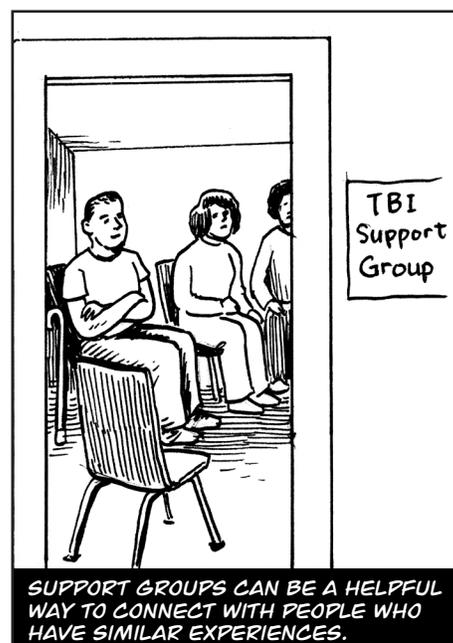


## CREATING A ROUTINE

# Understanding Traumatic Brain Injury: Part 3

### RECAP FROM PART 2...

Mike is home from the hospital and his emotional changes are causing his family some stress. They're working to find ways to overcome these challenges.



## Providing Structure at Home

Other ways to provide structure for people who've had a TBI. (Some of the following suggestions may not apply to your situation.)

- Maintain a photo album with labeled pictures of friends, family, and familiar places
- Place needed objects within easy reach
- Work to maintain familiar family dynamics (for example, if a person normally got to choose a restaurant for eating out, try to continue this)
- Even if speaking is difficult, include everyone in family conversations and social activities
- Be normal and act natural

## COPING STRATEGIES



I THINK THAT ON SOME LEVEL WE ALL KIND OF THOUGHT THAT WHEN MIKE CAME HOME THINGS WOULD BE BACK TO NORMAL. BUT THEY'RE NOT.

THERE'S SO MUCH MORE TO DO NOW.

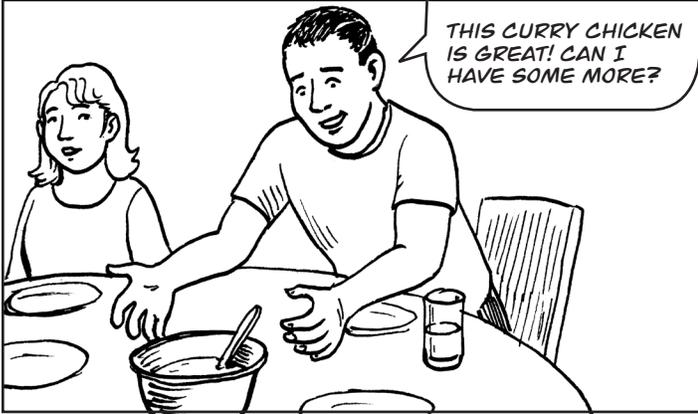


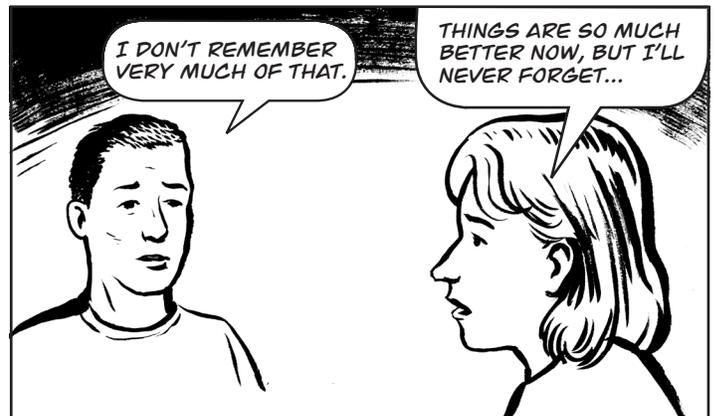
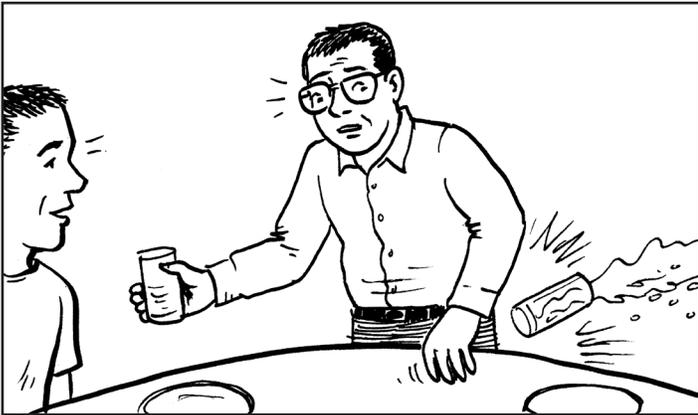


**Common Coping Strategies:**

- Taking time for yourself
- Keeping a regular schedule
- Getting regular exercise such as taking a 20-30min walk each day
- Participating in support groups
- Maintaining a sense of humor
- Being more assertive about getting the support you need
- Changing roles and responsibilities within the family

*The best thing you can do is to be open to trying new ways of coping and find out what works for you.*





**THE FIRST WEEKS AFTER INJURY**

In the first few weeks after a brain injury, damage or changes to the brain often affect its ability to function. The person may not show signs of awareness and their eyes may remain closed. Brain function usually improves as swelling decreases, and blood flow and brain chemistry stabilize. In time brain function usually improves, leading the person with a TBI to be more responsive.

IT IS DIFFICULT TO PREDICT LONG-TERM OUTCOMES BASED ON A BRAIN SCAN. HOWEVER THE LENGTH OF A COMA AND THE DURATION OF MEMORY LOSS (POST-TRAUMATIC AMNESIA) ARE USEFUL IN PREDICTING HOW WELL A PERSON WILL RECOVER.



## Diffuse Axonal Injury (DAI)

Brain cells are called *neurons*. They are connected to each other with fibers called *axons*. The Axons let the neurons talk to each other. A trauma to the head can harm axons by stretching or pulling them. If an axon is hurt too badly, the neuron it is connected to will not survive.

This happens at a microscopic level throughout the brain so it's not possible to see this on a brain scan.



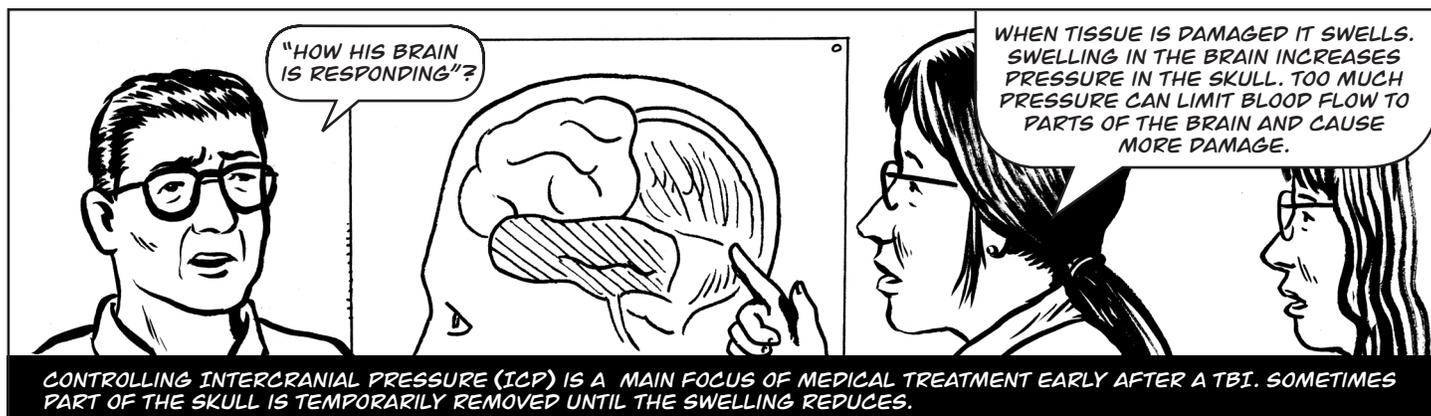
## Neurochemical Response to TBI

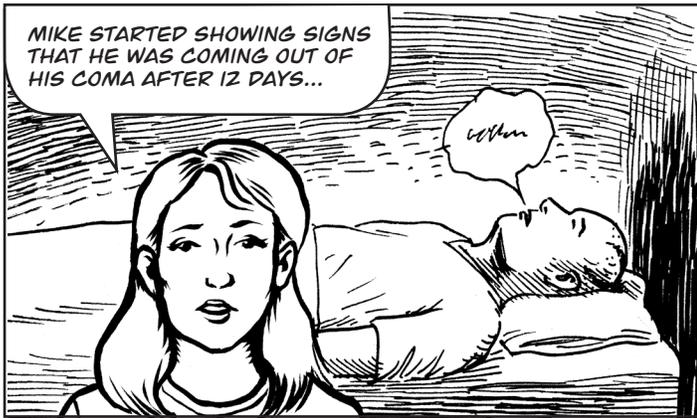
Sometimes the chemical balance of the brain is upset after a TBI. In a normally functioning brain, chemicals called "Neuro-Transmitters" let neurons communicate with each other. Groups of neurons work together to do different things. A TBI can increase or decrease the amount of neuro-transmitters in the brain, changing a person's thinking or behavior. As the chemical balance of the brain returns to normal the person's ability to function will improve. This usually happens within the first few weeks after TBI but can sometimes take months.



## Open Head Injuries

With open head injuries the skull and other layers that protect the brain are penetrated and exposed to the air. A classic example of an open head injury is a gunshot wound to the head. Damage following an open head injury tends to be limited to a specific area of the brain. However these injuries can still be as severe as closed head injuries depending on the path of the bullet or other object in the brain.





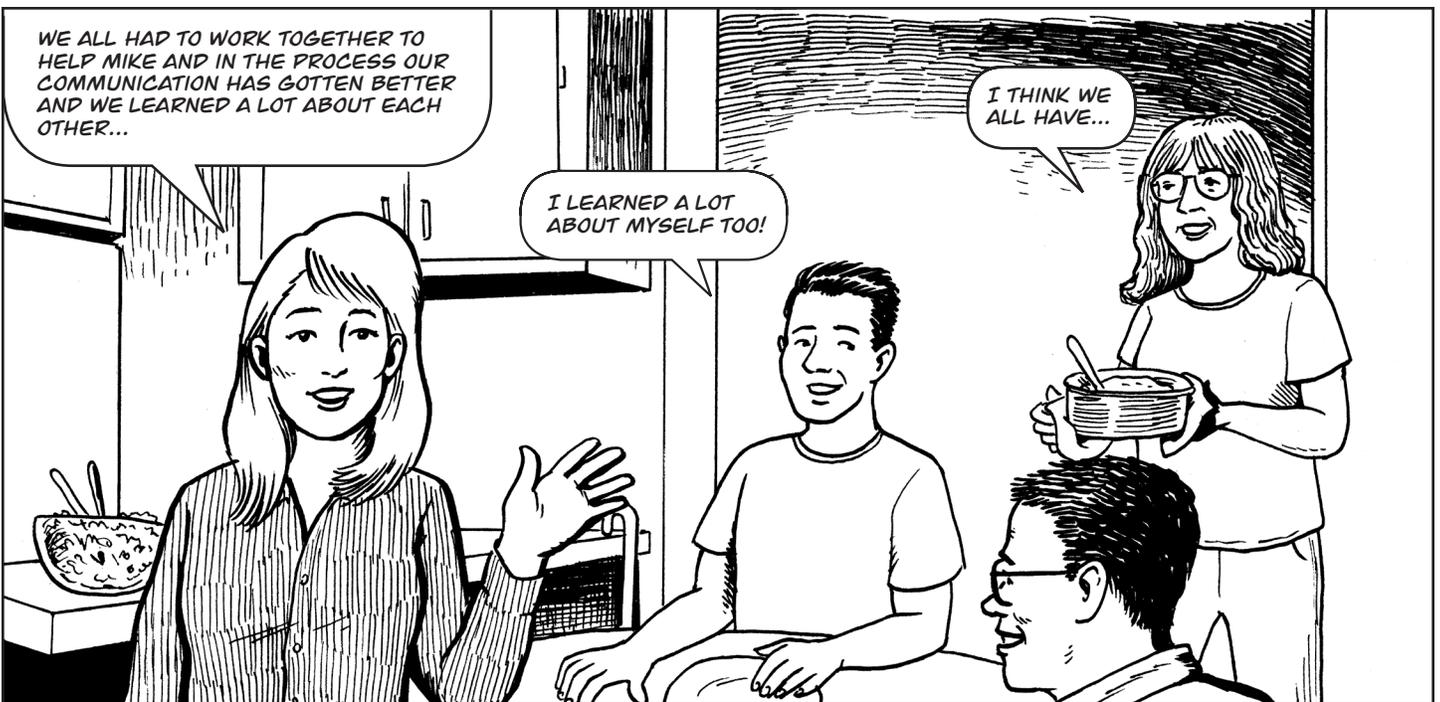
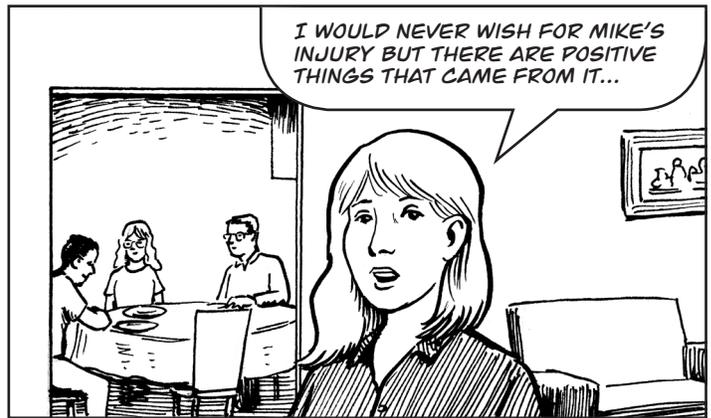
## HEALING OVER TIME



### Post Injury

Information collected by the TBI Model System Study from people who sustained moderate to severe TBIs shows that two years post injury:

- 93% of people are living in private residences
- 34% are living with their spouse or significant other
- 29% are living with their parents
- 34% require some type of supervision during either the day or night
- 33% are employed
- 3% are students
- 29% are unemployed
- 26% are retired for any reason



## SOURCE

The health information presented in this Graphic Fact Sheet is based on evidence from research and/or professional consensus and has been reviewed and approved by an editorial team of experts from the TBI Model Systems.

## AUTHORSHIP AND ILLUSTRATION

**Understanding TBI** was illustrated by David Lasky, it was written by Silas James and Ayla Jacob. Portions of this InfoComic were adapted from the four part series of Consumer Information Pamphlets also titled Understanding TBI, which was developed by Thomas Novack, PhD, and Tamara Bushnik, PhD in collaboration with the Model System Knowledge Translation Center. Portions of this document were adapted from materials developed by the University of Alabama TBIMS, Baylor Institute for Rehabilitation, New York TBIMS, Mayo Clinic TBIMS, Moss TBIMS, and from "Picking up the Pieces After TBI: A Guide for Family Members", by Angelle M. Sander, PhD, Baylor College of Medicine (2002).

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