

# BRAIN INJURY FACTS:

## What is brain injury?

Brain injury, also called acquired brain injury, is any damage to the brain affecting a person physically, emotionally or behaviorally. Brain injuries can happen at birth, or later, from an illness or a trauma, and are called either traumatic or non-traumatic, depending on the specific cause.



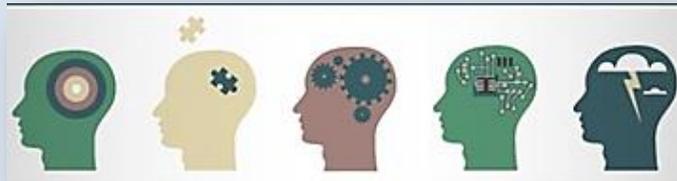
## How common is brain injury?

- ▶ An estimated 1.7 million people sustain a traumatic brain injury (TBI) each year.
- ▶ Most common in men between the ages of 15 to 24
- ▶ Approximately 5.3 million Americans are living with a TBI-related disability.
- ▶ After a brain injury, survivors are at higher risk (3 to 8 times higher) of having another brain injury.

<https://www.cdc.gov/traumaticbraininjury/severe.html>

## The Impact of brain injury

A brain injury may lead to a wide range of short-or long-term issues affecting:

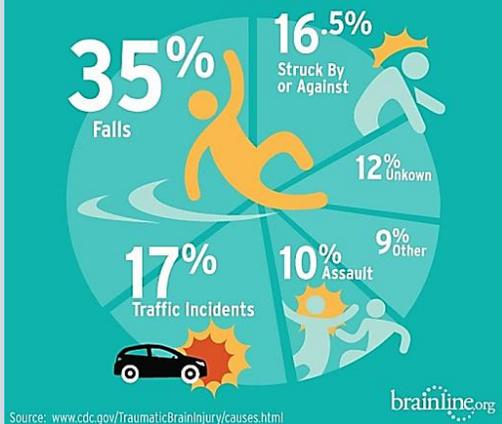


Cognitive Function	Physical Function	Sensation	Emotion & Behavior
<ul style="list-style-type: none"> <li>▶ Memory</li> <li>▶ Attention</li> <li>▶ Processing Speed</li> <li>▶ Problem-Solving</li> <li>▶ Language</li> </ul>	<ul style="list-style-type: none"> <li>▶ Strength</li> <li>▶ Coordination</li> <li>▶ Balance</li> <li>▶ Swallowing</li> <li>▶ Bowel &amp; Bladder Control</li> </ul>	<ul style="list-style-type: none"> <li>▶ Hearing</li> <li>▶ Vision</li> <li>▶ Sensation</li> <li>▶ Body Awareness</li> <li>▶ Smell</li> </ul>	<ul style="list-style-type: none"> <li>▶ Depression</li> <li>▶ Anxiety</li> <li>▶ Irritability/anger</li> <li>▶ Impulse control</li> <li>▶ Personality changes</li> </ul>

<https://www.cdc.gov/traumaticbraininjury/severe.html>

## Leading Causes of Traumatic Brain Injury

In the United States (2002 - 2006)



<https://www.cdc.gov/traumaticbraininjury/getthefacts.html>

Image taken from:

[https://www.cdc.gov/traumaticbraininjury/pdf/tbi\\_report\\_to\\_congress\\_epi\\_and\\_rehab-a.pdf](https://www.cdc.gov/traumaticbraininjury/pdf/tbi_report_to_congress_epi_and_rehab-a.pdf)

## Rancho Levels 1-10

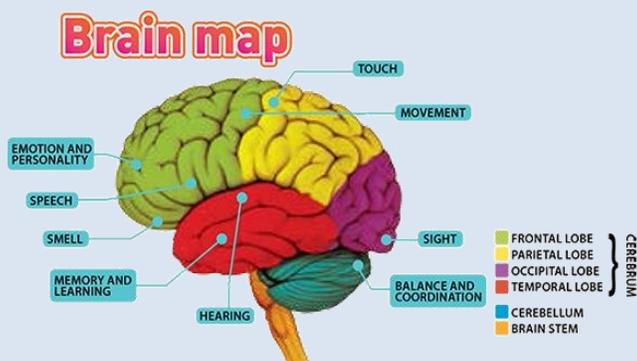
The Rancho Los Amigos scale is a 10-point system used to characterize TBI. It measures the levels of awareness, cognition, behavior and interaction with the environment.

<http://www.neuroskills.com/resources/rancho-los-amigos-revised.php>

Level I	No Response: Total Assistance
Level II	Generalized Response: Total Assistance
Level III	Localized Response: Total Assistance
Level IV	Confused/Agitated: Maximal Assistance
Level V	Confused, Inappropriate Non-Agitated: Maximal Assistance
Level VI	Confused, Appropriate: Moderate Assistance
Level VII	Automatic, Appropriate: Minimal Assistance for Daily Living Skills
Level VIII	Purposeful, Appropriate: Stand-By Assistance
Level IX	Purposeful, Appropriate: Stand-By Assistance on Request
Level X	Purposeful, Appropriate: Modified Independent

## What part of the brain is responsible for what?

<http://www.ngkids.co.uk/science-and-nature/human-brain>



## Reducing the risk of traumatic brain injury

- ▶ Always wear a seat belt.
- ▶ Don't drive under the influence of alcohol or drugs.
- ▶ Don't text and drive.
- ▶ Wear a helmet while riding a bike, skateboard, motorcycle, horse, or all-terrain vehicles.
- ▶ Wear a helmet while playing contact sports, skiing, skating, or snowboarding.
- ▶ Make living areas inside and outside the home safer.

Continued on back ▶

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# Living with Brain Injury:

## Improving sleep after TBI

### Do:

- ▶ Follow a bedtime routine.
- ▶ Establish a regular bed and wake time.
- ▶ Have a regular daytime routine
- ▶ Create a restful atmosphere.
- ▶ Minimize screen time before bed.



### Don't:

- ▶ Nap more than 20 minutes during the day.
- ▶ Eat, read, watch TV, or do work while in bed.
- ▶ Bring screen time into the bedroom
- ▶ Use caffeine, nicotine, alcohol and sugar for five hours before bedtime.
- ▶ "Watch the clock".

Talk to your doctor about options to improve your sleep.

For more tips go to:

<http://www.msktc.org/tbi/factsheets/Sleep-And-Traumatic-Brain-Injury>

## Use Organization tools

Calendars, daily planners, checklists, phone reminders, and pill organizers to help stay organized and assist your memory



## Manage stress



## Avoid alcohol

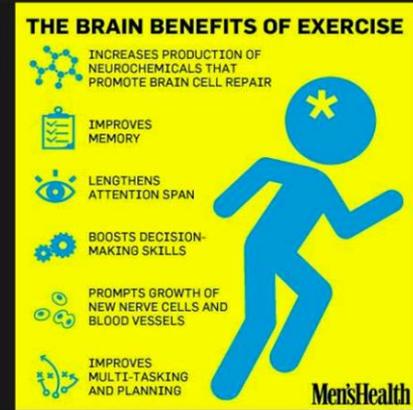


- ▶ Alcohol slows down or stops brain injury recovery.
- ▶ Alcohol magnifies some of the cognitive and mood problems caused by brain injury.
- ▶ Alcohol lowers the seizure threshold and may trigger seizures.
- ▶ Alcohol use increases risk of another brain injury!

<http://www.msktc.org/tbi/factsheets/Alcohol-Use-After-Traumatic-Brain-Injury>

## Exercise regularly

People with TBI who exercise show fewer symptoms of depression, fatigue, and cognitive problems. Talk to your providers about an exercise plan that meets your physical needs.



[http://www.brainline.org/content/2008/07/aerobic-exercise-following-tbi\\_pageall.html](http://www.brainline.org/content/2008/07/aerobic-exercise-following-tbi_pageall.html)

## Monitor Mood



- ▶ Depression is about 8 times more common in the first year after TBI than in the general population (about 50% of people with TBI).
- ▶ Seek help! There are many options to help with depression following TBI.

<http://www.nimh.nih.gov/health/topics/depression/index.shtml>