

## Traumatic Brain Injuries: How Damaged Parts Can Affect You

by [Traumatic Brain Injury Attorneys](#) on 10/27/10

Once your doctor says, “You’ve suffered a [traumatic brain injury](#),” you may think your life has ended. Fortunately, many people who survive the initial injury and the early treatment stages stand an excellent chance of regaining some of the functional skills they may have lost. Each injured person’s future depends upon: (1) the exact parts of the brain that were damaged, (2) the extent of the damage to each part, (3) how successful the prescribed rehabilitation and treatment programs are and (4) the patient’s own determination to prevail.

### Your Traumatic Brain Injury (TBI) and Key Parts of the Brain

As a new [TBI patient](#), the special challenges you’re facing are largely dependent upon which parts of your brain incurred the most damage. After you review the descriptions of major parts of the brain and their key functions (set forth below), you should have a clearer understanding of why you’re experiencing specific functional difficulties.

- **The Cerebrum.** This part of your brain accounts for 85 % of its weight and helps you: (1) control your voluntary muscles, (2) think seriously or solve problems and (3) recall most of your memories (both short- and long-term ones are stored in the cerebrum.) The left side of the cerebrum controls the right side of your body and the right side of the cerebrum controls the left side of the body.
- **The Cerebellum.** This part of the brain is located in the back, underneath the cerebrum and is only about 1/8<sup>th</sup> of the size of the cerebrum. The cerebellum controls your balance, coordination and movement. If you’re able to skillfully ski down some of

the most treacherous slopes at your favorite winter resort, you can thank your cerebellum for its help.

- **The Brain Stem.** Without your brain stem, you couldn't breathe air, have blood circulating throughout your body or digest food. The brain stem is located in front of the cerebellum and below the cerebrum. It connects your spinal cord to the brain. The involuntary muscles of the heart and stomach are operated by the brain stem; it signals your stomach when it should start digesting your food and tells your heart when it should pump more blood because you're doing strenuous exercises. Perhaps its other most critical job is processing all of the thousands of messages sent between your brain and spinal cord every day.
- **The Pituitary Gland.** Often described as just being the size of a pea, this gland plays a major role in releasing the many hormones that all humans need to grow, weather puberty and live through other major life stages. It also controls your body's metabolism.
- **The Hypothalamus.** This gland's most basic job is to regulate your body temperature. It can make your body sweat or shiver, depending on which activity is needed to normalize your body heat.
- **Your Brain's System of Neurons that Communicate with the Spinal Column.** Your nervous system is made up of millions of neurons that help your brain regularly communicate with various parts of your body. Strong pathways can be formed between neurons when you repeat various tasks. The first time you ever tried to hit a ball with a baseball bat, you probably just kept hitting dry air. As you repeated this activity, additional pathways were formed between your brain's neurons, slowly making it easier for you to hit the ball without having to think much about it.
- **The Amygdala.** This brain part is based on the Latin word for "almond" since that word describes its shape. The amygdala is the basic control center for all of your emotions.

## Ways SCI Patients Can Regularly Improve Their Brain and Bodily Functions

While it's up to your doctors, physical therapists and other healthcare providers to coordinate your rehabilitative and maintenance care, you can still play a very active role in your recovery process. Just make sure you avoid certain bad habits and start adopting some positive new ones. Here are some suggestions:

- **Stop smoking, drinking alcohol or using “street” (or other non-prescribed) drugs.** Get help so you can successfully control these addictions. If you continue these pursuits, they will not only work against your recovery, they may even cut short your life span.
- **Eat healthy foods** and minimize your intake of junk food. An occasional “drive-thru” hamburger may be okay but a regular dependence on “take-out” cuisine can seriously damage your health. No one needs meals that are overloaded with sugar, salt, preservatives and other questionable ingredients. Be sure to get your daily requirement of fruits and vegetables, while avoiding fatty meats and desserts filled with saturated fats. Consult a dietician, if necessary, to be sure you're taking in enough calcium and potassium. Both of those minerals are regularly needed to strengthen and maintain your nervous system.
- **Always wear a helmet**, even if you only get exercise in your wheelchair. Even small brain injuries can significantly reduce the quality of your life.
- **Make sure you include various hobbies and fun activities in your daily or weekly schedule.** Failing to include adequate fun and relaxation in your life can make you more susceptible to depression. You also need to keep pursuing some of your long-term dreams and ambitions.
- **Pursue whatever “mental gymnastics” are available to you.** Even if you've suffered fairly severe head injuries, try to do some reading, work a few puzzles, dabble in various artistic media or regularly engage in stimulating conversations with friends and mentors. Consider taking music lessons. Remember that whenever you create new neural connections in your brain, you help it function and serve you better.

We hope this article has served to both encourage and inform you. Some of the best years of your life can occur *after* your traumatic brain injury — if you never give up hope for additional recovery gains.

## Contact a Sacramento Brain Injury Lawyer

***Demas & Rosenthal** has been representing injury victims for nearly twenty years. We are committed to offering the highest quality representation and level of service. We have extensive experience handling a variety of **brain injury** and have the resources to take on major corporations and insurance companies; Please do not rely or act solely upon the information provided in this article. Please consider getting a consultation immediately. The **best personal injury law firms** will provide a free consultation. **Demas & Rosenthal** will provide a free, confidential consultation if you were injured. The free consultation offer extends to family members as well.*