

After Brain Injury

Brain injury that happens any time after birth can affect personality and many different parts of the body. Moderate-to-severe brain injury may have physical, emotional, and thinking symptoms that can range from very mild all the way to severe and last days, weeks, or months.

Each person experiences different effects after the injury. Sometimes we can predict the effects by the part of the brain that was injured; however, many parts of the brain work together, so an injury to even a small area may affect many things.

Longer-lasting effects of brain injury can impact you physically, cognitively (how you think), behaviorally, and emotionally as well as how you sleep.

What are the physical effects?

- Headaches
- Sensitivity to light and noise
- More risk for seizures
- Sensory problems
- Difficulty with balance and being coordinated
- Hearing or visual changes or problems
- Changes in muscle tone
- Trouble controlling heart rate and blood pressure (central autonomic dysfunction or storming)
- Difficulty swallowing and chewing
- Difficulty talking and communicating
- Loss of bowel and bladder control
- Poor endurance, tires easily
- Hormone changes

Where can I learn more?

You can learn more about head injuries on the Centers for Disease Control (CDC) website:
www.cdc.gov/traumaticbraininjury

What are the cognitive (thinking) effects?

- Decreased attention and alertness
- Not knowing where, when, or who they are (orientation problems)
- Concentration and focus problems
- Mental fatigue (the brain gets tired after thinking for a long time and starts to slow down)
- Memory problems, usually with new memories instead of old ones
- Difficulty learning something new
- Less ability to reason and make safe decisions and judgments
- Problems understanding how one's actions affect others (social awareness)
- Problems with "executive functioning," which includes:
 - Problem solving
 - Planning and organization
 - Working memory
 - Difficulty monitoring, regulating, and initiating thinking
 - Emotional control
 - Inhibition

What are the behavioral effects?

- Impulsiveness, lack of inhibition, or perseveration (getting stuck on an idea, word, or request)
- Agitation
- Easily frustrated, low tolerance level
- Irritable
- Self-centered
- Aggression or violent behavior

What are the emotional effects?

- Personality changes ranging from an exaggerated personality to very little emotional expression
- Depression and anxiety
- Mood swings
- Laughing or crying at the wrong times

What are the sleep effects?

- Sleeping more than usual
- Being drowsy or tiring easily with daily routine
- Having trouble falling or staying asleep

Do these effects happen right after an injury?

Not always. You may not notice these problems for weeks, months, or even years after an injury. It depends on the part of the brain that was injured at the time. It is important to talk with your healthcare providers if you are experiencing any of these issues. Your healthcare providers can help figure out the cause and help you develop a plan and strategies to recover and succeed.

What can I do to promote a speedy recovery?

- **Sleep.** It is not uncommon for people to sleep longer than usual each day. Sleeping longer than normal is good for your recovery in the early stages.
- **Try to follow a routine.** Get up and do some low-demand activities during the day. Try to go to bed at the same time each day. Take a brief nap (no more than 1 to 2 hours) around midday if you feel you need it.
- **Listen to your body.** If you're feeling tired or symptoms are getting worse, take a break from what you're doing for a while. Pushing through your symptoms to "get the job done" may slow your recovery.
- **Avoid risky activities that could lead to further injury.** Activities to avoid include cycling, climbing, sports, horse riding, and skiing — anything that requires a helmet or that could result in falling or injury. **A second concussion before your symptoms fully resolve can lead to death.**
- **Do not drive** unless your doctor says it's okay, especially if you're feeling tired.
- **Avoid high-stimulus environments** such as busy shopping malls, noisy restaurants, rock concerts, or parties.

Questions for my doctor
