

Changes in Emotion After Traumatic Brain Injury

May 2022

www.msktc.org/tbi/factsheets

TBI Factsheet

This factsheet explains changes in emotion that people may experience after TBI. It also discusses ways that people with TBI and their loved ones can manage these emotional concerns.

The way people experience or express emotions may change after a traumatic brain injury (TBI). While this can be distressing for family members and friends, many strategies can help manage these emotional concerns after TBI.

Anxiety

Anxiety is common in the general population and in people with moderate to severe TBI. Anxiety may look different from person to person, but most people with anxiety have intense fear and worry. Some people also have physical signs of anxiety. For example, they may have a racing heart, rapid breathing, sweating, shaking, or the sensation of butterflies in their stomach. They may feel anxious, stressed, or overwhelmed without knowing why. This stress can make recovery after a TBI even more difficult. People with TBI may have anxiety in situations that did not bother them in the past. They may feel anxious being in a crowd, when they are being rushed, or when adjusting to sudden changes in plans. They may feel overwhelmed in situations that require a lot of attention, fast thinking, or processing a lot of information at the same time.



Depression

People with depression may feel sad, irritable, or worthless. They may feel tired much of the time and may experience changes in sleep or appetite or difficulty concentrating. Sometimes, people may even have thoughts of death, hurting themselves, or taking their own life. People with these feelings often withdraw from others and lose interest in or feel less pleasure from activities they used to enjoy. Many signs of depression, such as fatigue and frustration, are also signs of TBI. However, someone with a TBI may experience these symptoms but not be depressed. Sadness, and grief are common after brain injury. Some people feel depressed right after TBI, but these feelings may also appear during the later stages of recovery. Symptoms of anxiety may appear before depression. If these feelings become overwhelming or interfere with recovery, the person with TBI may be experiencing depression.

Anger and irritability

People with moderate to severe TBI may feel more anger, irritability, and frustration after their TBI. Family members often describe them as having a “short fuse” or “flying off the handle” easily. This anger may be a result of not understanding the changes they are experiencing caused by the TBI. After brain injury, people can have difficulty recognizing the problems they are having. They may not realize that they seem angrier to others. It can be confusing to them when others tell them about these changes. Even when people with TBI are aware they have more anger, they often don’t understand why they feel this way or how it is affecting others. Anger can have a big impact on the support that people get from family and friends after TBI. It can affect closeness in relationships and lead to further isolation.



The Traumatic Brain Injury Model Systems program is sponsored by the National Institute on Disability, Independent Living, and Rehabilitation Research, Administration for Community Living, U.S. Department of Health and Human Services. (See <http://www.msktc.org/tbi/model-system-centers> for more information.)



What causes emotional changes after TBI?

- Emotional changes can occur if the TBI affects areas of the brain that control emotions. Changes to these brain regions and to the chemicals that help the brain work can affect how the person with TBI experiences or expresses emotion.
- People with TBI may have a hard time coping with their injury. They may need to adjust to a loss of independence, or to changes to their role in their family and in society. These changes can lead to frustration and dissatisfaction with their life.
- People with TBI may also have changes in their thinking abilities, such as memory, attention, speed of thinking, and reasoning. These changes can cause them to feel overwhelmed if they can't remember things or keep up with what others are doing or saying. They may respond emotionally, with sadness, worry, or anger.
- Use of alcohol or other drugs can lead to emotional changes, and emotional distress may also lead to alcohol and drug use.
- People who had problems with depression or anxiety before the TBI may find that these problems are worse after the TBI. They may feel isolated, depressed, or misunderstood which can also affect emotions.



How to address emotional concerns after TBI

- Remember that emotional distress is not a sign of weakness and it is no one's fault. A person can't get over their distress by wishing it away or "toughening up."
- Medicine and counseling or psychotherapy can help with emotional distress after TBI. Sometimes, a combination of both works best.
 - If you choose to take medicine, you should work closely with the doctor or provider who prescribed the medication. Be sure to attend all follow-up visits about your medicine.
 - If you choose counseling or psychotherapy, let your therapist know about your TBI. Ask them to help you write important concepts down so that you can review them at home. Tell your therapist if you need to have something repeated in order to understand it better.
- Stress and stressful situations can trigger emotional distress. People with TBI can take steps to reduce stress. For example, they can use relaxation techniques such as deep breathing or muscle relaxation, schedule breaks, and practice mindfulness activities.
- A daily schedule of structured activities and exercise can help reduce distress. Activities may include exercise, puzzles, or games.
- It is best to get treatment early to avoid needless suffering. Do not wait.
- If you (or your family member) have thoughts of suicide, get help. You can call a local crisis line, 911, or the National Suicide Prevention Lifeline at 1-800-273-TALK (8255), or go to your local emergency room.



Family members can help by changing the way they react to emotional distress after TBI:

- Remember that anxiety, depression, irritability, and other changes in emotion after TBI may be due to brain injury. Try not to take it personally. Also remember that changes in emotion are no one's fault and try not to blame the person with TBI.
- Stay calm and try not to react in an emotional way yourself or to argue with the person with TBI. If you are angry or hurt, take a break before you talk to them.
- When they are acting out in anger, do not give in to their demands to try to calm them down. This can actually have the opposite effect of rewarding them for expressing their emotions in a non-helpful way. Resist the urge to give in to unreasonable demands. Instead, explain that you will talk to them when they are calm. Walk away and take a break until they are calmer.



- Provide feedback in a gentle and supportive way after the person is calm.
- Give the person with TBI opportunities to take a break to process their emotions. Encourage them to use deep breathing or listen to music to relax. Offer a quiet area, away from the stressor, to calm down and regain control. Then, redirect their attention to a different topic or activity.
- Give the person with TBI time to have structured independence and more control over his or her life.
- Tell them you recognize their emotions and want to understand their feelings and give the person with TBI a chance to talk about their feelings. People with TBI often have a hard time naming their emotions and might find it hard to recognize emotions in others. This means that they may not realize that they seem angry or that they are making others uncomfortable. You can help them identify their emotions and tell them how you feel.
- Seek out support. The family may benefit from social and professional support. Counseling can help relieve the family's worry and help them to cope better each day.

Peer support and other resources:

Remember, not all help comes from professionals! You and your family may benefit from the following:

- **Support groups:** Some support groups are for the person with TBI, while others are for family members, and some are open to everyone affected by TBI. Information about support groups may be found through TBI organizations, rehabilitation facilities, and social media, among other places.
- **Peer mentoring:** A peer is a person who is currently living with a TBI. A peer can offer support and advice to others who are new to TBI and dealing with similar problems.
- **Brain Injury Association** (<http://www.biausa.org>): Reach out to your local chapter for resources, including training and resources for caregivers and family members.
- Find someone to talk to. Reach out to a friend, family member, member of the clergy, or someone else who is a good listener.



Recommended reading

- Senelick, R. C. (2013). *Living with brain injury: A guide for patients and families* (3rd ed.). Healthsouth Press.
- Brain Injury Association of New York State. (2004). *Making life work after head injury: A family guide for life at home*. https://bianys.org/wp-content/uploads/2015/05/Making_Life_Work-after-TBI.pdf
- Cassidy, J. W. (2009). *Mindstorms: The complete guide for families living with traumatic brain injury*. De Capo Lifelong Books.
- Fann, J., & Hart, T. in collaboration with the Model Systems Knowledge Translation Center (2010) *Depression after Traumatic Brain Injury*. https://msktc.org/lib/docs/Factsheets/TBI_Depression_and_TBI.pdf
- Neumann, D., Miles, S. R., Sander, A., & Greenwald, B. in collaboration with the Model Systems Knowledge Translation Center (2021). *Irritability, Anger, and Aggression After TBI*. <https://msktc.org/sites/default/files/MSKTC-IrrAftTBI-Factsheet-508.pdf>



Authorship

Changes in Emotion After Traumatic Brain Injury was developed by Amanda Zwilling, Ph.D., Angelle Sander, PhD, and Robin Hanks, PhD, in collaboration with the Model Systems Knowledge Translation Center. It was an update to the factsheet entitled *Emotional Problems after TBI* developed by Tessa Hart, PhD and Keith Cicerone, PhD, in collaboration with the Model Systems Knowledge Translation Center.

Source: The content in this factsheet is based on research and/or professional consensus. This content has been reviewed and approved by experts from the Traumatic Brain Injury Model Systems (TBIMS), funded by the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR), as well as experts from the Polytrauma Rehabilitation Centers (PRC), funded by the U.S. Department of Veterans Affairs.

Disclaimer: This information is not meant to replace the advice of a medical professional. You should consult your health care provider regarding specific medical concerns or treatment. The contents of this factsheet were developed under grants from the National Institute on Disability, Independent Living, and Rehabilitation Research (NIDILRR grant numbers 90DP0082 and 90DPKT0009), and the Patient-Centered Outcomes Research Institute (PCORI grant number CER-1511-33005). NIDILRR is a Center within the Administration for Community Living (ACL), U.S. Department of Health and Human Services (HHS). The contents of this factsheet do not necessarily represent the policy of NIDILRR, PCORI, ACL, or HHS, and you should not assume endorsement by the federal government.

Recommended citation: Zwilling, A., Sander, A., & Hanks, R. (2022). *Changes in emotion after traumatic brain injury*. Model Systems Knowledge Translation Center (MSKTC). <https://msktc.org/tbi/factsheets/emotional-problems-after-traumatic-brain-injury>

Copyright © 2022 Model Systems Knowledge Translation Center (MSKTC). May be reproduced and distributed freely with appropriate attribution. Prior permission must be obtained for inclusion in fee-based materials.

