Fatigue and Traumatic Brain Injury

September 2024 https://msktc.org/tbi/factsheets TBI Factsheet

This factsheet looks at fatigue after TBI. Topics include what fatigue is, causes of fatigue, and ways to decrease fatigue.

What Is Fatigue?

Fatigue is a feeling of exhaustion, tiredness, weariness, or lack of energy. After TBI, you may have more than one kind of fatigue:

1. **Physical fatigue:** "I'm tired and I need to rest. I'm dragging today."
2. **Psychological fatigue:** "I just can't get motivated to do anything. Being depressed wears me out; I just don't feel like doing anything."
3. **Mental fatigue:** "After a while, I just can't concentrate anymore. It's hard to stay focused. My mind goes blank."

Why Is Fatigue Important?

When you are fatigued, you are less able to think clearly or do physical activities. If you are overwhelmed by fatigue, you have less energy to care for yourself or do things you enjoy. Fatigue can have a negative effect on your mood, physical functioning, attention, concentration, memory, and communication. It can interfere with your ability to work or enjoy leisure activities. It can make activities such as driving dangerous.

How Common Is Fatigue After TBI?

Fatigue is one of the most common problems people have after a TBI. As many as 70% of survivors of TBI complain of mental fatigue.

The Model Systems Knowledge Translation Center works with Traumatic Brain Injury Model System centers to provide free research-based rehabilitation resources for people living with traumatic brain injury (see https://msktc.org/tbi for more information). This factsheet has been approved by experts from the TBIMS centers.

What Causes Fatigue?

Fatigue is normal for anyone after hard work or a long day. In people with TBI, fatigue often occurs more quickly and frequently than it does in the general population. The cause of fatigue after TBI is not clear, but it may be due to the extra effort and attention it takes to do even simple activities such as walking or talking clearly. Brain function may be less "efficient" than before the injury.

- **Physical fatigue** can come from muscle weakness. The body needs to work harder to do things that were easy before the TBI. Physical fatigue gets worse in the evening and is better after a good night's sleep. Often this kind of fatigue will lessen as the person gets stronger, more active, and back to their old life.
- **Psychological fatigue** is associated with depression, anxiety, and other psychological conditions. This type of fatigue gets worse with stress. Sleep may not help at all, and fatigue is often at its worst when you wake up in the morning.

- **Mental fatigue** comes from the extra effort it takes to think after your brain is injured. Many common tasks take much more concentration than they did before. Working harder to think and stay focused can make you mentally tired.
- **Certain conditions and medications** are known to cause or increase fatigue. They include the following:
  - Depression
  - Sleep problems, such as sleep apnea
  - Seasonal allergies
  - Hypothyroidism or other endocrine gland disorders
  - Respiratory or cardiac problems
  - Headaches
  - Lack of physical exercise
  - Vitamin deficiency and poor nutrition
  - Stress
  - Low red blood cell counts (anemia)
  - Medications commonly used after TBI, such as muscle relaxers and pain medication

What Can Be Done to Decrease Fatigue?

- **Pay attention to what triggers your fatigue,** and learn to identify the early signs of fatigue, such as becoming more irritable or distracted. Stop an activity before getting tired.
- **Get more sleep and rest.** If you have insomnia, tell your doctor. There may be a medical condition causing this, or there may be useful treatments.
- **Set a regular schedule** of going to bed and getting up at the same time every day. Your body and mind will be more efficient. Include some regular rest breaks or naps. Be careful to limit naps to 30 minutes and avoid evening naps.
- **Alcohol and marijuana** will generally make fatigue worse.
- **Caffeine** (coffee, cola products) should be avoided after lunch if sleeping is a problem.
- **Resume activities gradually**, over weeks or even months.
- **Start with familiar tasks** at home or work that you can complete without fatigue. Gradually increase the complexity of each task, taking breaks as needed.
- **Improve your time management:**
  - Plan and follow a daily schedule. Using a calendar or planner can help manage mental fatigue.
  - Prioritize activities. Finish what is most important first.
  - Do things that require the most physical or mental effort earlier in the day when you are fresher.
  - Avoid over-scheduling.
  - If visitors make you tired, limit time with them.

- **Exercise daily.** Research has shown that people with TBI who exercise have better mental function and alertness. Over time, exercise and being more active helps lessen physical and mental fatigue and builds stamina. It also may decrease depression and improve sleep.

- **Talk to your doctor.**
  - Discuss medical or physical problems that may be causing fatigue.
  - Have your doctor review all your current medications.
  - Tell your doctor if you think you might be depressed so treatment can be started.
  - Ask your doctor if there are any blood tests that could help to find out what is causing your fatigue.

Authorship

Fatigue and Traumatic Brain Injury was developed in 2009 and updated in 2024 by Kathleen R. Bell, MD, in collaboration with the Model Systems Knowledge Translation Center. Portions of this document were adapted from materials developed by the Rocky Mountain Regional Brain Injury System, Carolinas Traumatic Brain Injury Rehabilitation and Research System, and the Mayo Clinic Traumatic Brain Injury Model System.

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