Mild Traumatic Brain Injury and Concussion: An Overview

According to the Centers for Disease Control and Prevention (CDC), about 75% of traumatic brain injuries (TBI) that occur each year are concussions or “mild” TBIs. These are injuries to the brain and need to be taken seriously. In this Brief, we will provide an overview of mild TBI/concussion.

What is mild TBI/concussion?
A mild TBI/concussion is caused by a bump, blow, or jolt to the head that changes brain function and includes at least one of the following (see symptoms below):

- Any change in mental state at the time of injury
- Any loss of memory for events just before or after the injury
- Neurological changes that may or may not be temporary
- Brain lesion (bruising or bleeding in the brain seen on a CT or MRI scan)
- A period of unconsciousness (not exceeding 30 minutes)

What are the symptoms of mild TBI/concussion?
Symptoms of mild TBI/concussion may appear immediately after the injury or may not appear until days or weeks after the injury. The list below includes some of the most common symptoms. Individuals are unlikely to experience all of these symptoms.

<table>
<thead>
<tr>
<th>Physical Symptoms</th>
<th>Cognitive Symptoms</th>
<th>Emotional-Behavioral Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dizziness</td>
<td>Feeling dazed or “in a fog”</td>
<td>Irritability</td>
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<tr>
<td>Weakness</td>
<td>Disorientation</td>
<td>Quick to anger</td>
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<tr>
<td>Changes in balance</td>
<td>Confusion</td>
<td>Decreased motivation</td>
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<tr>
<td>Headaches</td>
<td>Difficulty concentrating</td>
<td>Anxiety</td>
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<tr>
<td>Changes in vision</td>
<td>Slowed information processing</td>
<td>Depression</td>
</tr>
<tr>
<td>Changes in hearing</td>
<td>Difficulty learning new information</td>
<td>Withdrawal</td>
</tr>
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<td>Sleep disturbance</td>
<td>Difficulty with memory</td>
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<tr>
<td>Fatigue</td>
<td>Difficulty juggling multiple tasks</td>
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</tbody>
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What are the potential risks?

**Ongoing Postconcussive Symptoms**

Although most individuals recover fully from a mild TBI/concussion, some individuals experience symptoms lasting 3 months or more.

**Brain at Risk**

In the first days to weeks after a mild TBI/concussion, the brain is very sensitive. During this time, there is a greater chance of having a second mild TBI/concussion.

**Catastrophic Outcomes**

Life-threatening medical problems after a mild TBI/concussion are extremely rare but do occur. The most frequent cause of these problems is acute bleeding in the brain.

What is the best approach to managing symptoms/risks?

**Immediately Following Injury**

- **Medical attention:** Seek medical attention from a health care professional knowledgeable about TBI.
- **Time out:** Rest immediately following injury. Returning to regular activity too soon-while the brain is still healing-puts you at greater risk of having a second mild TBI/concussion. Follow the advice of your health care professional for when to resume normal activities, including work, school, driving, sports, and other recreational activities.
- **Education:** For more information about mild TBI/concussion or questions about specific issues contact Ask a Librarian (see link below).
- **Management strategies:** Limit exposure to noise, bright lights, stimulating music, and distractions. Reduce “screen time:” TV, video games, and computer activities. Limit scheduled activities: Consider shortening work or school days; Reduce work load.

**If Symptoms Persist**

Your health care professional may suggest further assessment and treatment. In some cases, a comprehensive treatment program is recommended. The program may include:

- **Medical treatment:** Symptom-specific treatments include pain medications for headaches and/or physical therapy.
- **Cognitive rehabilitation:** Training in the use of compensatory tools and strategies to help manage cognitive symptoms post-injury.
- **Counseling & support:** Structured programs that help manage the emotional response to mild TBI/concussion. Support groups can also be helpful.

Where can I find more information?

* Center on Brain Injury Research and Training (CBIRT)  
  Ask a Librarian—www.cbirt.org/ask-librarian
* Brainline—www.brainline.org
* CDC—www.cdc.gov/concussion/index.html

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