Brain Injuries and Disaster Events
Information for Clinicians

Brain Injury Facts
- An estimated 1.5 million Americans sustain a traumatic brain injury (TBI) each year, most often due to motor vehicle crashes, falls and violence.
- TBIs can range from mild to severe. The term mild traumatic brain injury (MTBI) refers to the relatively minor presenting symptoms of the individuals, and not to the long-term consequences, which may be serious.
- In disaster events such as the World Trade Center attack or the Oklahoma City bombing, MTBIs can be caused by flying debris, falls or blast waves from an explosion.
- In the chaos following mass casualty events, diagnosis of MTBIs may be missed.
- Timely diagnosis and treatment of long term consequences of MTBI is needed.

Signs and Symptoms After an MTBI
Early MTBI symptoms may appear mild, but they can lead to a significant, life-long impairment, affecting an individual’s ability to function cognitively, physically, and psychologically. In addition to the obvious, look for these signs and symptoms:

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<thead>
<tr>
<th>Cognitive</th>
<th>Physical</th>
<th>Behavioral</th>
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<tbody>
<tr>
<td>Attention difficulties</td>
<td>Headaches</td>
<td>Irritability</td>
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<td>Concentration problems</td>
<td>Dizziness</td>
<td>Depression</td>
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<td>Memory problems</td>
<td>Insomnia</td>
<td>Anxiety</td>
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<td>Orientation problems</td>
<td>Fatigue</td>
<td>Sleep disturbances</td>
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<td>Uneven Gait</td>
<td>Problems with emotional control</td>
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<td></td>
<td>Nausea</td>
<td>Loss of initiative</td>
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<td></td>
<td>Blurred vision</td>
<td>Problems related to employment,</td>
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<td>marriage, relationships, and</td>
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<td></td>
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<td>home or school management</td>
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Diagnosis
Diagnosing an MTBI can be a challenge because symptoms are often common to other medical problems, and the severity of the symptoms can change over time. Any patient with a history of head trauma suffering from confusion, disorientation, or amnesia of events around the time of injury, loss of consciousness of 30 minutes or less, neurological or neuropsychological problems, or with a Glasgow Coma Scale (GCS) Score of 13 or higher, may have an MTBI. Taking a careful medical history can be key to detecting an MTBI. Any unusual or unexplained signs or symptoms should be evaluated further.

Treatment
MTBI treatment varies from person to person. Educating the patient and his/her family about the possibility of a brain injury and the symptoms that may be experienced as a result of such an injury is critical. Referral to specialists in neurology, neuropsychology, or rehabilitation may be appropriate.
**Additional Resources for Clinicians**


Brian Injury Association of America: www.biausa.org.


Glasgow Coma Scale (adapted from Womack Army Medical Center, internet version).


**Resources for Patient Education**

