

**Link to Post-traumatic stress disorder and traumatic brain injury article:**  
<https://pubmed.ncbi.nlm.nih.gov/25701911/>

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## Abstract

Disentangling the effects of "organic" neurologic damage and psychological distress after a traumatic brain injury poses a significant challenge to researchers and clinicians. Establishing a link between traumatic brain injury (TBI) and post-traumatic stress disorder (PTSD) has been particularly contentious, reflecting difficulties in establishing a unique diagnosis for conditions with overlapping and sometimes contradictory symptom profiles. However, each disorder is linked to a variety of adverse health outcomes, underscoring the need to better understand how neurologic and psychiatric risk factors interact following trauma. Here, we present data showing that individuals with a TBI are more likely to develop PTSD, and that individuals with PTSD are more likely to develop persistent cognitive sequelae related to TBI. Further, we describe neurobiological models of PTSD, highlighting how patterns of neurologic damage typical in TBI may promote or protect against the development of PTSD in brain-injured populations. These data highlight the unique course of PTSD following a TBI and have important diagnostic, prognostic, and treatment implications for individuals with a dual diagnosis.

**Link to The Evolution of Post-Traumatic Stress Disorder following Moderate-to-Severe Traumatic Brain Injury article:** <https://pubmed.ncbi.nlm.nih.gov/26176500/>

## Abstract

Increasing evidence indicates that post-traumatic stress disorder (PTSD) may develop following traumatic brain injury (TBI), despite most patients having no conscious memory of their accident. This prospective study examined the frequency, timing of onset, symptom profile, and trajectory of PTSD and its psychiatric comorbidities during the first 4 years following moderate-to-severe TBI. Participants were 85 individuals (78.8% male) with moderate or severe TBI recruited following admission to acute rehabilitation between 2005 and 2010. Using the Structured Clinical Interview for Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition, Disorders (SCID-I), participants were evaluated for pre- and post-injury PTSD soon after injury and reassessed at 6 months, 12 months, 2 years, 3 years, and 4 years post-injury. Over the first 4 years post-injury, 17.6% developed injury-related PTSD, none of whom had PTSD prior to injury. PTSD onset peaked between 6 and 12 months post-injury. The majority of PTSD cases (66.7%) had a delayed-onset, which for a third was preceded by subsyndromal symptoms in the first 6 months post-injury. PTSD frequency increased over the first year post-injury, remained stable during the second year, and gradually declined thereafter. The majority of subjects with PTSD experienced a chronic symptom course and all developed one or more than one comorbid psychiatric disorder, with mood, other anxiety, and substance-use disorders being the most common. Despite event-related amnesia, post-traumatic stress symptoms, including vivid re-experiencing phenomena, may develop following moderate-to-severe TBI. Onset is typically delayed and symptoms may persist for several years post-injury.

**Keywords:** anxiety disorder; post-traumatic stress disorder; psychiatric disorder; traumatic brain injury.