

# Sleep Problems in Patients with Traumatic Brain Injury



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Traumatic brain injury (TBI) is one of the leading causes of mortality and prolonged morbidity in modern society. Patients with TBI suffer from sleep problems as well cognitive dysfunction and emotional problems depending on the severity of brain injury. Sleep disturbance such as sleep-wake disturbance, insomnia and hypersomnia is very common in patients with TBI.

The research showed significantly lower melatonin level in TBI patients suggesting disruption of circadian regulation. In addition, decreased CSF hypocretin level in acute TBI and some chronic TBI was reported, suggesting an involvement of hypocretin system inducing excessive daytime sleepiness. In this session, sleep problems after TBI in acute and chronic phase will be reviewed. Potential pathophysiology for sleep-wake disturbances and recent research methods will be discussed as well.

Potential treatment for TBI patients will be briefly mentioned.

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**Key Words:** Traumatic brain injury, Hypersomnia, Insomnia, Sleep disturbance

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