

Appendix 7.1

Brief Definitions of Sleep Disorders Most Frequently Reported Following mTBI*

Insomnia

<i>Main feature</i>	Dissatisfaction with the quality or quantity of sleep.
<i>Common symptoms</i>	Subjective complaints of difficulty falling asleep, difficulty maintaining sleep (with frequent awakenings and/or difficulty returning to sleep after awakenings), early morning awakenings (with insufficient sleep duration) and/or nonrestorative sleep.
<i>Additional criteria</i>	To be considered as an insomnia disorder, symptoms have to be present at least 3 nights/week, last more than 1 or 6 months (depending on the nosology being used), and cause significant distress or impairment in daytime functioning.

Sleep-related breathing disorders

<i>Main feature</i>	Altered respiration during sleep.
<i>Main subtypes</i>	Obstructive sleep apnea (OSA): breathing alteration associated with complete (apnea) or partial (hypopnea) obstruction of the upper airway during sleep. Central apnea: breathing alteration associated with temporary loss of ventilatory effort.
<i>Common symptoms</i>	Daytime sleepiness, frequent awakenings to restart breathing, restless and nonrestorative sleep, snoring.
<i>Additional criteria</i>	Presence of at least 5 polysomnography-documented apneas or hypopneas per hour of sleep.

Narcolepsy

<i>Main feature</i>	Rare disorder characterized by recurrent unplanned daytime napping or sleep episodes.
<i>Common symptoms</i>	Tetrad of classic symptoms (that are not always all present): daytime sleepiness, cataplexy (i.e., episodic loss of muscle function), hypnagogic hallucinations (i.e. dream-like experiences while falling asleep, dozing or awakening), and sleep paralysis (i.e., transitory, inability to talk, or move upon awakening).

Post-traumatic hypersomnia

<i>Main feature</i>	Hypersomnia because of medical condition (TBI) when other primary sleep disorders have been ruled out.
<i>Common symptoms</i>	Excessive daytime sleepiness, increased sleep duration.

Circadian rhythm sleep disorders

<i>Main feature</i>	Mismatch between one's sleep-wake rhythm and the 24-hour environment. In addition to the sleep-wake cycle, melatonin secretion and body temperature rhythms can be disrupted.
<i>Common symptoms</i>	Delayed sleep phase disorder: prolonged delay in the sleep-wake episodes relative to conventional times; Advanced sleep phase disorder: advance in the sleep-wake episodes relative to conventional times; Irregular sleep-wake rhythm: high day-to-day variability in sleep onset and offset.
<i>Additional criteria</i>	Sleep disturbances when trying to conform with conventional times (inability to fall asleep or remain asleep); normal sleep quality and duration when choosing the preferred schedule.

* Taken with permission from Ouellet MC, Beaulieu-Bonneau S Morin CM. Sleep-Wake Disturbances. In Eds. Zasler ND, Katz DI, Zafonte RD. Brain Injury Medicine: Principles and Practice. New York; Demos Medical Publishing LLC; 2012.